

State of Delaware
Department of Natural Resources and Environmental Control
Division of Air and Waste Management
Air Quality Management Section

156 South State Street
Dover, DE 19901

7 DE Admin. Code 1130 (Title V) Operating Permit
Facility I.D. Number: 1000300016
Permit Number: AQM-003/00016 – Part 2 (Revision 2)

Effective Date: Expiration Date:
Renewal Application Due Date:

Pursuant to 7 **Del. C.**, Ch 60, Section 6003, 7 **DE Admin. Code** 1102 Section 2.0, and 7 **DE Admin. Code** 1130 Section 7.2, approval by the Department of Natural Resources and Environmental Control ("Department") is hereby granted to operate the emission units listed in Condition 1 of this permit subject to the terms and conditions of this permit.

This approval is granted to:

Permittee/Owner (hereafter referred to as "Company/Owner")	Operator (hereafter referred to as "Operator")
The Premcor Refining Group Inc. 4550 Wrangle Hill Road Delaware City, Delaware 19706 Responsible Official: John Pickering Title: Vice President and General Manager	Valero Delaware City Refinery
Facility Site Location	Facility Mailing Address
Valero Delaware City Refinery 4550 Wrangle Hill Road Delaware City, Delaware 19706	Valero Delaware City Refinery 4550 Wrangle Hill Road Delaware City, Delaware 19706

The nature of business of the Facility is Petroleum Refining. The Standard Industrial Classification code is 2911. The North American Industry Classification System code is 324110.

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Condition 1- Emission Unit Identification*[Reference: 7 DE Admin. Code 1130 Section 3.3 dated 11/15/93]***a. Emission Units Information.**

Emission Units	Emission Point	Emission Unit Description
	Carbon canister locations ¹	Oily Sewer System, API/CPI separators, flash mix tank, spill diversion and equalization tanks, 2 flocculation tanks and dissolved nitrogen floatation (DNF) system
WWTP	10-1	DNF Oil Recovery System and Vapor Combustion Unit (VCU)
	No emission points	Secondary and tertiary treatment equipment (downstream of DNF), 1 st and 2 nd stage activated sludge, sand filtration and assorted sumps and equipment
GDF	N/A	Gasoline dispensing facility
MVR	15-1 15-2	Marine piers 2 and 3 loading area
CU	21-1	Crude Unit, Atmospheric heater 21-H-701, and vacuum heater 21-H-2
		Crude coker gasoline Merox treater
	21-1 or 28-1 or 28-2	SWS hydrogen sulfide stripping vessel, 21-C-302
FCU	22-1	Fluid coke handling and storage facility
	22-2	Fluid Coking Unit (FCU), FCU start up heater 22-H-1, CO Boiler (22-H-3), wet gas scrubber and SNCR
	22-3	Back up incinerator 22-H-4
	22-4	FCU Selas Steam Superheater
FCCU	23-1	FCCU start up heaters 23-H-1A and 1B, FCCU, CO Boiler (22-H-3), wet gas scrubber, alky merox spent air, and poly merox spent air
GP	Fugitives	Refinery gas plant
RFG2K	25-4 and 25-5	CNHT reactor charge heater 25-H-401, CNHT reboiler heater 25-H-402, CHNT unit, reformer, butamer unit
ALKY	Fugitives	Aklylation unit
POLY	Fugitives	Polymerization unit
SRA	28-1 and 28-2	Sulfur recovery area inclusive of 2 Claus sulfur recovery units (SRU I and SRU II), Shell Claus Offgas Treatment Units I (SCOT I and II)
HP	37-1A and 37-1B	Hydrogen plant and reformer heater 37-H-1 A/B
MP	41-1 and 41-2	This unit has been shut down with no foreseeable plan to restart
CCR	42-1 and 42-2	CCR reformer unit, platform heater 42-H-1,2,3 and CCR reboiler 42-H-7

¹ Carbon canisters are located at various parts of the oily sewer system and the primary treatment plant. The details of the locations are described in Section A of the accompanying review memorandum.

Emission Units	Emission Point	Emission Unit Description
Utilities	45-1 and 45-2	Refinery flare system, spent caustic stripper and RFG2K cooling tower
Facility wide		See Condition 3 - Table 1 (Specific Conditions)

b. 7 DE Admin. Code 1102 Permit Identification².

Reference: Number	Full 7 DE Admin. Code 1102 Permit Designation
<u>APC-81/0283</u>	<u>APC-81/283 OPERATION</u> issued January 14, 1981 for the Oil Recovery System
<u>APC-81/1008 (A3)</u>	<u>APC-81/1008 OPERATION (Amendment 3)(NESHAP)</u> issued October 31, 2000 for the API/CPI Separators
<u>APC-81/1008 (A4)</u>	<u>APC-81/1008-CONSTRUCTION/OPERATION (Amendment 4)(NESHAP)</u> issued February 22, 2001 for the API/CPI Separators
<u>APC-81/1009 (A2)</u>	<u>APC-81/1009 OPERATION (Amendment 2)(NESHAP)</u> issued November 8, 1999 for the Equalization Tanks and Spill Diversion Tank
<u>APC-81/1009</u>	<u>APC-81/1009 OPERATION</u> dated June 17, 1981 for 2 second stage clarifiers and 2 second stage aeration tanks ³
<u>APC-93/0350 (A1)</u>	<u>APC-93/0350 CONSTRUCTION/OPERATION (Amendment 1)(NESHAP)</u> issued on June 25, 2001 for the Oily Water Sewer System
<u>APC-94/0710</u>	<u>APC-94/0710-OPERATION (NESHAP)(NOx RACT)</u> issued April 14, 1998 for the VCU
<u>APC-95/0862-OI</u>	<u>APC-95/0862-OPERATION (Stage I)</u> issued April 28, 1995 for the Dual point Stage I Vapor Recovery System
<u>APC-95/0863-OII</u>	<u>APC-95/0863-OPERATION (Stage II)</u> issued April 28, 1995 for the Healy Stage II Vapor Recovery System
<u>APC-95/0471 (A2)</u>	<u>APC-95/0471-OPERATION (Amendment 2)(MACT)(RACT)</u> issued May 3, 2002 for the Marine Vapor Recovery System
<u>APC-81/0828 (A1)</u>	<u>APC-81/0828 (A1)-OPERATION (Amendment 1)</u> issued June 29, 2007 for the Crude Unit
<u>APC-95/0570 (A2)</u>	<u>APC-95/0570-OPERATION (Amendment 2)(LAER)(NSPS)</u> issued June 29, 2007, for the Crude Unit Atmospheric Heater 21-H-701
<u>APC-81/0784 (A1)</u>	<u>APC-81/0784-CONSTRUCTION (Amendment 1)(NOx RACT)</u> issued April 25, 1996 for the Vacuum Tower Heater; and
<u>APC-81/0784</u>	<u>APC-81/0784-OPERATION</u> issued June 17, 1981 for the Vacuum Tower Heater
<u>APC-81/0963</u>	<u>APC-81/0963-OPERATION</u> issued August 12, 1981 for the coker Merox Plant

² This chart identifies the underlying permits whose provisions have been incorporated into this Title V permit and specifies the Reference: number that will be used to identify the source of the underlying permit condition throughout this Title V permit.

³ APC-81/1009 dated June 17, 1981 has 9 uncovered tanks listed in Appendix "A" of that permit. Of these 9 tanks, the 2 equalization tanks, 1 flocculator tank, 1 flash mix tank and 1 floatation clarifier have been included in subsequent NESHAP permits. Therefore the applicability of APC-81/1009 dated June 17, 1981 is restricted to the 2 second stage clarifiers and 2 second stage aeration tanks.

Reference: Number	Full 7 DE Admin. Code 1102 Permit Designation
<u>APC-81/0785</u>	<u>APC-81/0785-OPERATION</u> issued June 17, 1981 for various heaters
<u>APC-81/0829 (A7)</u>	<u>APC-81/0829-OPERATION (Amendment 7)</u> issued June 4, 2008 for the Fluid Coker Unit, FCU Carbon Monoxide Boiler, Wet Gas Scrubber, and Selective Non-Catalytic Reduction System
<u>APC-82/1209 (A3)</u>	<u>APC-82/1209-OPERATION (Amendment 3)</u> issued May 2, 2005 for the Coke and Flux Handling/Storage Facility
<u>APC-82/0981 (A7)</u>	<u>APC-82/0981-OPERATION (Amendment 7) (NSPS)</u> issued June 30, 2008 for the Fluid Catalytic Cracking Unit (FCCU), FCCU Carbon Monoxide Boiler, and Wet Gas Scrubber System and additional NO _x control system
<u>APC-81/0827 (A1)</u>	<u>APC-81/0827-OPERATION (Amendment 1)(RACT)(NSPS)</u> issued January 30, 1995 for the Alkylation Merox Unit-Merox Treater
<u>APC-98/0522</u>	<u>APC-98/0522-OPERATION (RACT)(NSPS)</u> ISSUED June 18, 2002 for the CHNT Heaters
<u>APC-98/0523</u>	<u>APC-98/0523-OPERATION (NSPS)(RACT)(NESHAP)</u> issued March 11, 2002 for the CNHT Unit, Butamer Unit, Alkylation Unit and cooling tower
<u>APC 81/0825</u>	<u>APC 81/0825-OPERATION</u> issued June 17, 1981 for the Catalytic Reformer Unit
<u>APC 82/0593</u>	<u>APC 82/0593-OPERATION</u> issued March 31, 1982 for the Polymerization Merox Plant
<u>APC-81/0826 (A2)</u>	<u>APC-81/0826-OPERATION (Amendment 2)</u> issued August 22, 1991 for the Alkylation and Polymerization Units
<u>APC-98/0264 (A6)</u>	<u>APC-98/0264-CONSTRUCTION/OPERATION (Amendment 6)(NSPS)</u> issued June 29, 2007 for the Sulfur Recovery Area
<u>APC-81/0965</u>	<u>APC-81/0965-OPERATION</u> issued September 9, 1981 for the Hydrogen Plant
<u>APC-81/0965 (A1)</u>	<u>APC-81/0965-OPERATION (Amendment 1)(VOC RACT)</u> issued April 7, 2003 for the Hydrogen Plant Replacement of Low Temperature Shift Reactor Catalyst
<u>APC-82/0073</u>	<u>APC-82/073-OPERATION</u> issued February 8, 1985 for the CCR Reformer and Heater 42-H-1,2,3;
<u>APC-82/0073 (A1)</u>	<u>APC-82/0073-OPERATION (Amendment 1)(MACT)</u> issued August 16, 2005 for the CCR Reformer and Hydrochloric Acid Wet Gas Scrubber
<u>APC-82/0632</u>	<u>APC-82/0632-OPERATION</u> issued February 8, 1985 for the CCR Reformer Reboiler Heater 42-H-7
<u>APC-81/0830</u>	<u>APC-81/0830-OPERATION</u> issued July 30, 1981 for the Flare System
<u>APC-95/0381</u>	<u>APC-95/0381-OPERATION</u> issued May 13, 1996 for the Spent Caustic Stripper
<u>APC-2005/0197</u>	<u>APC-2005/0197-OPERATION (RACT)(MACT)(NSPS)</u> issued June 27, 2008 for the Tier 2 Gasoline Project

Condition 2 - General Requirements

a. Certification.

- Each document submitted to the Department/EPA as required by this permit shall be certified by a Responsible Official as to truth, accuracy, and completeness. Such certification shall be signed by a Responsible Official and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the

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document are true, accurate, and complete." [Reference: 7 **DE Admin. Code** 1130 Section 5.6 dated 11/15/93 and 6.3.1 dated 12/11/00]

2. Any report of deviations required under Conditions 3(c)(2)(ii) or 3(c)(2)(iii) that must be submitted to the Department within ten calendar days of discovery of the deviation, may be submitted in the first instance without a certification provided a certification meeting the requirements of Condition 2(a)(1) is submitted to the Department within ten calendar days thereafter, together with any corrected or supplemental information required concerning the deviation. [Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.3.4 dated 12/11/00]
3. Each document submitted to the Department/EPA pursuant to this permit shall be sent to the following addresses:

State of Delaware – DNREC Division of Air and Waste Management Air Quality Management Section 156 South State Street Dover, DE 19901 ATTN: Program Administrator	United States Environmental Protection Agency Associate Director of Enforcement (3AP12) 1650 Arch Street Philadelphia, PA 19103
No. of Originals: <u>1</u> & No. of Copies: <u>1</u>	No. of Copies: <u>1</u>

b. Compliance.

1. The Owner and/or Operator shall comply with all terms and conditions of this permit. Any noncompliance with this permit constitutes a violation of the applicable requirements under the Clean Air Act, and/or 7 **DE Admin. Code** 1100, and is grounds for an enforcement action; for permit termination, revocation, and reissuance or modification; or for denial of a permit renewal. [Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.1 dated 12/11/00]
2.
 - i. For applicable requirements with which the source is in compliance, the Owner and/or Operator shall continue to comply with such requirements. [Reference: 7 **DE Admin. Code** 1130 Sections 5.4.8.3.1 dated 11/15/93 and 6.3.3 dated 12/11/00]
 - ii. For applicable requirements that will become effective during the term of this permit, the Owner and/or Operator shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. [Reference: 7 **DE Admin. Code** 1130 Sections 5.4.8.3.2 dated 11/15/93 and 6.3.3 dated 12/11/00]
3. Nothing in Condition 2(b)(1) of this permit shall be construed to preclude the Owner and/or Operator from making changes consistent with Condition 2(m)(3) [Minor Permit Modifications] or Condition 4(a) [Operational Flexibility]. [Reference: 7 **DE Admin. Code** 1130 Sections 6.8 dated 12/11/00 and 7.5.1.5 dated 12/11/00]
4. The fact that it would have been necessary to halt or reduce an activity in order to maintain compliance with the terms and conditions of this permit shall not constitute a defense for the Owner and/or Operator in any enforcement action. Nothing in this permit shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations. [Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.2 dated 12/11/00]
5. The Owner and/or Operator may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency or malfunction if both the record keeping requirements in Condition 3(b)(2)(iii) and the reporting requirements in Condition 3(c)(2)(ii)(A) are satisfied. [Reference: 7 **DE Admin. Code** 1130 Section 6.7.2 dated 12/11/00]

6.
 - i. In any enforcement proceeding, the Owner and/or Operator seeking to establish the occurrence of an emergency or malfunction has the burden of proof. *[Reference: 7 DE Admin. Code 1130 Section 6.7.4 dated 12/11/00]*
 - ii. The provisions of 7 DE Admin. Code 1130 pertaining to Emergency/Malfunctions as defined in Conditions Nos. 2(b)(5); 2(b)(6); 3(b)(2)(iii); and 3(c)(2)(ii)(A) of this permit are in addition to any emergency or malfunction provision contained in any applicable requirement. *[Reference: 7 DE Admin. Code 1130 Section 6.7.5 dated 12/11/00]*
7. Reserved.
8. If required, the schedule of compliance in Condition 5 of this permit is supplemental to and shall not sanction noncompliance with the applicable requirements upon which it is based. *[Reference: 7 DE Admin. Code 1130 Section 5.4.8.3.3 dated 11/15/93]*
9. Nothing in this permit shall be interpreted to preclude the use of any credible evidence to demonstrate noncompliance with any term of this permit. *[Reference: 62 FR 8314 dated 2/24/97]*
10. All terms and conditions of this permit are enforceable by the Department and by the U.S. Environmental Protection Agency ("EPA") unless specifically designated as "State Enforceable Only" *[Reference: 7 DE Admin. Code 1130 Section 6.2.1 dated 12/11/00]*
- c. **Confidentiality.** The Owner and/or Operator may make a claim of confidentiality for any information or records submitted to the Department. However, by submitting a permit application, the Owner and/or Operator waives any right to confidentiality as to the contents of its permit, and the permit contents will not be entitled to protection under 7 Del. C., Ch 60, § 6014. *[Reference: 7 DE Admin. Code 1130 Sections 5.1.4 dated 11/15/93, 6.1.3.3.5 dated 12/11/00, and 6.1.7.5 dated 12/11/00]*
 1. Confidential information shall meet the requirements of 7 Del. C., Ch 60, § 6014, and 29 Del. C., Ch 100. *[Reference: 7 DE Admin. Code 1130 Section 5.1.4 dated 11/15/93]*
 2. If the Owner and/or Operator submits information to the Department under a claim of confidentiality, the Owner and/or Operator shall also submit a copy of such information directly to the EPA, if the Department requests that the Owner and/or Operator do so. *[Reference: 7 DE Admin. Code 1130 Section 5.1.4 dated 11/15/93]*
- d. **Construction, Installation, or Alteration.** The Owner and/or Operator shall not initiate construction, installation, or alteration of any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department under 7 DE Admin. Code 1102, and, when applicable, 7 DE Admin. Code No. 1125, and receiving approval of such application from the Department; except as exempted in 7 DE Admin. Code 1102 Section 2.2. *[Reference: 7 DE Admin. Code 1102 Section 2.1 dated 6/1/97 and 7 DE Admin. Code 1130 Section 7.2.3 dated 12/11/00]*
- e. **Definitions/Abbreviations.** Except as specifically provided for below, for the purposes of this permit, terms used herein shall have the same meaning accorded to them under the applicable requirements of the Clean Air Act and 7 DE Admin. Code 1100.
 1. "Act" means the Clean Air Act, as amended by the Clean Air Act Amendments of November 15, 1990, 42 U.S.C. 7401 *et seq.* *[Reference: 7 DE Admin. Code 1130 Section 2 dated 11/15/93]*
 2. "AP-42" means the Compilation Of Air Pollutant Emission Factors, Fifth Edition, AP-42, dated January 15, 1995, as amended with Supplements "A" dated February 1996, "B" dated November 1996, "C" dated November 1997, "D" dated August 1998, "E" dated September 1999, and "F" dated September 2000 and the December 2001 update, the December 2002 update and the December 2003 update.

3. "CFR" means Code of Federal Regulations.
4. "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the sources, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. *[Reference: 7 DE Admin. Code 1130 Section 6.7.1 dated 12/11/00]*
5. "Malfunction" means any sudden and unavoidable failure of air pollution control equipment or of a process to operate in a normal or usual manner, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the malfunction. A malfunction shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. *[Reference: 7 DE Admin. Code 1130 Section 6.7.1 dated 12/11/00]*
6. "Number 2 fuel oil" and "No. 2 fuel oil" means distillate oil.
7. "Reg." and "Regulation" mean the regulations covered under 7 **DE Admin. Code 1100**.
8. "Regulations Governing the Control of Air Pollution" means the codification of those regulations enacted by the Delaware Department of Natural Resources and Environmental Control, in accordance with 7 **Del. C.**, Ch 60, § 6010.

f. Duty to Supplement.

1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the Owner and/or Operator shall promptly submit to the Department such supplementary facts or corrected information. *[Reference: 7 DE Admin. Code 1130 Section 5.2 dated 11/15/93]*
2. The Owner and/or Operator shall promptly submit to the Department information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to the release of a corresponding draft permit. *[Reference: 7 DE Admin. Code 1130 Section 5.2 dated 11/15/93]*
3. The Owner and/or Operator shall furnish to the Department, upon receipt of a written request and within a reasonable time specified by the Department:
 - i. Any information that the Department determines is reasonably necessary to evaluate or take final action on any permit application submitted in accordance with Condition 2(l) or 2(m) of this permit. The Owner and/or Operator may request an extension to the deadline the Department may impose on the response for such information. *[Reference: 7 DE Admin. Code 1130 Section 5.1.2.3 dated 11/15/93]*
 - ii. Any information that the Department requests to determine whether cause exists to modify, terminate, or revoke this permit, or to determine compliance with the terms and conditions of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.1.7.5 dated 12/11/00]*
 - iii. Copies of any records required to be kept by this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.1.7.5.7 dated 12/11/00]*

- g. Emission Trading.** No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit. *[Reference: 7 DE Admin. Code 1130 Section 6.1.9 dated 12/11/00]*

- h. Fees.** The Owner and/or Operator shall pay fees to the Department consistent with the fee schedule established by the Delaware General Assembly. *[Reference: 7 DE Admin. Code 1130 Section 6.1.8 dated 12/11/00 and Section 9.0 dated 11/15/93]*
- i. Inspection and Entry Requirements.** Upon presentation of identification, the Owner and/or Operator shall allow authorized officials of the Department to perform the following:
1. Enter upon the Owner and/or Operator's premises where a source is located or an emissions-related activity is conducted, or where records that must be kept under the terms and conditions of this permit are located. *[Reference: 7 DE Admin. Code 1130 Section 6.3.2.1 dated 12/11/00]*
 2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.3.2.2 dated 12/11/00]*
 3. Inspect, at reasonable times and using reasonable safety practices, any facility, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.3.2.3 dated 12/11/00]*
 4. Sample or monitor, at reasonable times, any substance or parameter for the purpose of assuring compliance with this permit or any applicable requirement. *[Reference: 7 DE Admin. Code 1130 Section 6.3.2.4 dated 12/11/00]*
- j. Permit and Application Consultation.** The Owner and/or Operator is encouraged to consult with Department personnel before submitting an application or, at any other time, concerning the operation, construction, expansion, or modification of any installation, or concerning the required pollution control devices or system, the efficiency of such devices or system, or the pollution problem related to the installation. *[Reference: 7 DE Admin. Code 1130 Section 5.1.1.7 dated 11/15/93]*
- k. Permit Availability.** The Owner and/or Operator shall have available at the facility at all times a copy of this permit and shall provide a copy of this permit to the Department upon request. *[Reference: 7 DE Admin. Code 1102 Section 8.1 dated 6/1/97]*
- l. Permit Renewal.** This permit expires on *<maximum is no more than the issue date plus 5 years>* except as provided in Condition 2(l)(3) below. *[Reference: 7 DE Admin. Code 1130 Section 6.1.2 dated 12/11/00]*
1. Applications for permit renewal shall be subject to the same procedural requirements, including those for public participation, affected state comment, and EPA review, that apply to initial permit issuance under 7 DE Admin. Code 1130 Section 7.1, except that an application for permit renewal may address only those portions of the permit that the Department determines require revision, supplementing, or deletion, incorporating the remaining permit terms by Reference: from the previous permit. The Department may similarly, in issuing a draft renewal permit or proposed renewal permit, specify only those portions that will be revised, supplemented, or deleted, incorporating the remaining permit terms by Reference:.. *[Reference: 7 DE Admin. Code 1130 Section 7.3.1 dated 12/11/00]*
 2. The Owner and/or Operator's right to operate shall cease upon the expiration date unless a timely and complete renewal application has been submitted to the Department no later than 12 months prior to the expiration date of the permit. *[Reference: 7 DE Admin. Code 1130 Section 7.3.2 dated 12/11/00]*
 3. The Department shall review each application for completeness and shall inform the applicant within 60 days of receipt if the application is incomplete. Unless the Department requests additional information or otherwise notifies the applicant of incompleteness within 60 days of an application, an application will be deemed complete if it contains the information required by the application form and 7 DE Admin. Code 1130 Section 5.4. *[Reference: 7 DE Admin. Code 1130 Section 5.1.2.1 dated 11/15/93]*

4. If a timely and complete application for a permit renewal is submitted to the Department pursuant to 7 **DE Admin. Code** 1130, Section 5.1.2.4 (dated 11/15/93) and Section 7.3.1 (dated 12/11/00) and the Department, through no fault of the Owner and/or Operator, fails to take final action to issue or deny the renewal permit before the end of the term of this permit, then this permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time. *[Reference: 7 DE Admin. Code 1130 Section 7.3.3 dated 12/11/00]*

m. Permit Revision and Termination.

1.
 - i. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. *[Reference: 7 DE Admin. Code 1130 Section 6.1.7.3 dated 12/11/00]*
 - ii. Except as provided under Condition 2(m)(3) ["Minor Permit Modification"], the filing of a request by the Owner and/or Operator for a permit modification, revocation and reissuance, or termination, or of a modification of planned changes or anticipated noncompliance does not stay any term or condition of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.1.7.3 dated 12/11/00 and 7.5.1.5 dated 12/11/00]*
2. "Administrative Permit Amendment." When required, the Owner and/or Operator shall submit to the Department a request for an administrative permit amendment in accordance with 7 **DE Admin. Code** 1130 Section 7.4. *[Reference: 7 DE Admin. Code 1130 Section 7.4 dated 12/11/00]*
3. "Minor Permit Modification." When required, the Owner and/or Operator shall submit to the Department an application for a minor permit modification in accordance with 7 **DE Admin. Code** 1130 Section 7.5.1 and 7.5.2. *[Reference: 7 DE Admin. Code 1130 Section 7.5.1 dated 12/11/00 and 7.5.2 dated 12/11/00]*
 - i. For a minor permit modification, during the period of time between the time the Owner and/or Operator makes the change or changes proposed in the minor permit modification application and the time that the Department takes action on the application, the Owner and/or Operator shall comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this period the Owner and/or Operator, at its own risk, need not comply with the existing terms and conditions of this permit that it seeks to modify. *[Reference: 7 DE Admin. Code 1130 Section 7.5.1.5 dated 12/11/00 and 7.5.2.5 dated 12/11/00]*
 - ii. If the Owner and/or Operator fail to comply with its proposed permit terms and conditions during this time period, the existing terms and conditions of this permit may be enforced against the Owner and/or Operator. *[Reference: 7 DE Admin. Code 1130 Section 7.5.1.5 dated 12/11/00 and 7.5.2.5 dated 12/11/00]*
4. "Significant Permit Modification." When required, the Owner and/or Operator shall submit to the Department an application for a significant permit modification in accordance with 7 **DE Admin. Code** 1130 Section 7.5.3. *[Reference: 7 DE Admin. Code 1130 Section 7.5.3 dated 12/11/00]*
5.
 - i. When the Owner and/or Operator is required to meet the requirements under Section 112(g) of the Act or to obtain a preconstruction permit under 7 **DE Admin. Code** 1100, the Owner and/or Operator shall file a complete application to revise this permit within 12 months of commencing operation of the construction or modification. *[Reference: 7 DE Admin. Code 1130 Section 5.1.1.4 dated 11/15/93]*
 - ii. When the Owner and/or Operator is required to obtain a preconstruction permit, the Owner and/or Operator may submit an application to revise this permit for concurrent processing. The revision request for this permit when submitted for concurrent processing shall be

submitted to the Department with the Owner and/or Operator's preconstruction review application or at such later time as the Department may allow. Where this permit would prohibit such construction or change in operation, the Owner and/or Operator shall obtain a permit revision before commencing operation. *[Reference: 7 DE Admin. Code 1102 Sections 11.2.10, 11.5 and 12.4, dated 6/11/06, and 7 DE Admin. Code 1130 Section 5.1.1.4 dated 11/15/93]*

- iii. Where an application is not submitted for concurrent processing, the Owner and/or Operator shall obtain an operating permit under 7 **DE Admin. Code 1100** prior to commencing operation of the construction or modification to cover the period between the date operation is commenced and until such time as operation is approved under 7 **DE Admin. Code 1130**. *[Reference: 7 DE Admin. Code 1102 Section 2.1 dated 6/11/06]*
6. "Permit Termination." The Owner and/or Operator may at any time apply for termination of this permit in accordance with 7 **DE Admin. Code 1130** Section 7.8.4 or Section 7.8.5. *[Reference: 7 DE Admin. Code 1130 Sections 7.8.4 dated 12/11/00 and 7.8.5 dated 12/11/00]*

n. Permit Transfer.

1. A change in ownership or operational control of this facility shall be treated as an administrative permit amendment where the Department has determined that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new owner has been submitted to the Department. *[Reference: 7 DE Admin. Code 1130 Section 7.4.1.4 dated 12/11/00]*
2. In addition to any written agreement submitted by the Owner and/or Operator in accordance with Condition 2(n)(1), the Owner and/or Operator shall have on file at the Department a statement meeting the requirements of 7 **Del. C., Ch 79, Section 7902**. *This permit condition is state enforceable only. [Reference: 7 Del. C., Ch 79 Section 7902 dated 8/28/2007]*
3. The written agreement required in Condition 2(n)(1) of this permit shall be provided to the Department within a minimum of 30 calendar days prior to the specific date for transfer and shall indicate that the transfer is agreeable to both the current and new owner. *[Reference: 7 DE Admin. Code 1102 Section 7.1 dated 6/1/97]*

- o. Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege. *[Reference: 7 DE Admin. Code 1130 Section 6.1.7.4 dated 12/11/00]*

p. Risk Management Plan Submissions.

1. In the event this stationary source, as defined in the State of Delaware 7 **DE Admin. Code 1201** "Accidental Release Prevention Regulation" Section 4.0, is subject to or becomes subject to Section 5.0 of 7 **DE Admin. Code 1201** (as amended March 11, 2006), the owner or operator shall submit a risk management plan (RMP) to the Environmental Protection Agency's RMP Reporting Center by the date specified in Section 5.10 and required revisions as specified in Section 5.190. A certification statement shall also be submitted as mandated by Section 5.185. *[Reference: 7 DE Admin. Code 1130 Section 6.1.4 dated 12/11/00, 7 DE Admin. Code 1201 as amended March 11, 2006 and Delaware; Approval of Accidental Release Prevention Program, Federal Register Vol. 6, No. 11 pages 30818-22 dated June 8, 2001]*
2. If this stationary source, as defined in 7 **DE Admin. Code 1201** Section 4.0, is not subject to Section 5.0 but is subject or becomes subject to Section 6.0 (as amended March 11, 2006), the owner or operator shall submit a Delaware RMP to the State of Delaware's Accidental Release Prevention group by the date as specified in Section 6.6.10 and required revisions as specified by Section 6.6.1. *Note: State enforceable only. [Reference: 7 DE Admin. Code 1201 as amended March 11, 2006]*

q. Protection of Stratospheric Ozone.

When applicable, this Facility shall comply with the following requirements: *[Reference: 40 CFR Part 82 "Protection of Stratospheric Ozone" revised as of 7/1/97 and 7 DE Admin. Code 1130 Section 2.0 dated 11/15/93]*

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - i. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a process that uses a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - ii. The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - iii. The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - iv. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
2. Any person servicing, maintaining, or repairing appliances, except for motor vehicles, shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B. In addition, Subpart F applies to refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment.
 - i. Persons owning appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to §82.154 and §82.156.
 - ii. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - iii. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - iv. Persons performing maintenance, service, repair, or disposal of appliances must certify with the Administrator pursuant to §82.158 and §82.162.
 - v. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like appliance" as defined at §82.152)
 - vi. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
3. Owners/Operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR Part 82, Subpart F §82.166.
4. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, "Production and Consumption Controls".
5. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the MVAC, the permittee

is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners".

- i. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. These systems are regulated under 40 CFR Part 82, Subpart F.
- 6. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed as acceptable in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program.
- r. **Severability.** The provisions of this permit are severable. If any part of this permit is held invalid, the application of such part to other persons or circumstances and the remainder of this permit shall not be affected thereby and shall remain valid and in effect. *[Reference: 7 DE Admin. Code 1130 Section 6.1.6 dated 12/11/00]*

Condition 3- Specific Requirements

- a. **Emission Limitations Emission Standards, Operational Limitations, and Operational Standards.** The Owner and/or Operator shall comply with the limitations and standards detailed in Condition 3 – Table 1 of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.1.1 dated 12/11/00]*
- b. **Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping).** The Owner and/or Operator shall maintain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all original strip-chart recordings, where appropriate, for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, the permit may specify that records may be maintained in computerized form. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.2 dated 12/11/00]*
 - 1.
 - i. **Specific Requirements.** The Owner and/or Operator shall comply with the operational limitations, monitoring, testing, and record keeping requirements detailed in Condition 3 – Table 1 which are in addition to those in Conditions 3(b)(1)(ii) and 3(b)(2) of this permit. *[Reference: 7 DE Admin. Code 1130 Sections 6.1.1 dated 12/11/00, 6.1.3.1 dated 12/11/00, and 6.1.10 dated 12/11/00]*
 - ii. **General Testing Requirements.** Upon written request of the Department, the Owner and/or Operator shall, at the Owner and/or Operator's expense, sample the emissions of, or fuel used by, an air contaminant emission source, maintain records, and submit reports to the Department on the results of such sampling. *[Reference: 7 DE Admin. Code 1117 Section 2.2 dated 7/17/84]*
 - iii. The Department must observe all stack emission testing and monitor certification testing including any test audits conducted on the monitors as part of the Quality Assurance Program for the results to be considered for acceptance unless the Department determines in advance, in writing, that the test need not be observed. Further, the Department may in its discretion determine based on its observation of the test that it need not observe the entire test. *[Reference: 7 DE Admin. Code 1117 Section 2.2 dated 7/17/84]*
 - iv. All monitor performance specification testing and stack emissions testing shall require the submission of a "Source Sampling Guidelines and Preliminary Survey Form" which must be found acceptable to the Department at least 30 days prior to the testing. *[Reference 7 DE Admin. Code 1120, Section 1.4, dated 12/7/88]*

- v. The results of all monitor performance specification testing and stack emission testing shall be submitted to the Department, in triplicate, within 60 days after completion of the testing. *[Reference: 7 DE Admin. Code 1120, Section 1.4, dated 12/7/88]*

2. General Record Keeping Requirements. The Owner and/or Operator shall record, at a minimum, all of the following information:

- i. If required, for each operating scenario identified in Condition 3 – Table 1 of this permit, a log that indicates the operating scenario under which each particular emission unit is operating. The Owner and/or Operator shall, contemporaneously with changing from one operating scenario to another, record in this log the time at which the operating scenario under which it is operating is changed. *[Reference: 7 DE Admin. Code 1130 Section 6.1.10 dated 12/11/00]*
- ii. The following information to the extent specified in Condition 3 – Table 1 of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1 dated 12/11/00]*
 - A. The date, place, and time of the sampling or measurements. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.1 dated 12/11/00]*
 - B. The dates analyses were performed. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.2 dated 12/11/00]*
 - C. The Owner and/or Operator or entity that performed the analyses. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.3 dated 12/11/00]*
 - D. The analytical techniques or methods used. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.4 dated 12/11/00]*
 - E. The results of such analyses. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.5 dated 12/11/00]*
 - F. The operating conditions as existing at the time of sampling or measurement. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.6 dated 12/11/00]*
- iii. If the Owner and/or Operator is claiming the affirmative defense of emergency or malfunction as provided in Condition 2(b)(5); a properly signed, contemporaneous operating logs, or other relevant evidence which indicates that: *[Reference: 7 DE Admin. Code 1130 Section 6.7.3 dated 12/11/00]*
 - A. An emergency or malfunction occurred and the causes of the emergency or malfunction. *[Reference: 7 DE Admin. Code 1130 Section 6.7.3.1 dated 12/11/00]*
 - B. The facility was at the time of the emergency or malfunction being operating in a prudent and professional manner and in compliance with the generally accepted industry operations and maintenance procedures. *[Reference: 7 DE Admin. Code 1130 Section 6.7.3.2 dated 12/11/00]*
 - C. During the period of the emergency or malfunction the Owner and/or Operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.7.3.3 dated 12/11/00]*
- iv. A copy of the written notice required by Condition 3(c)(2)(iii) for each change made under Condition 4(c) [Operational Flexibility] of this permit shall be maintained with a copy of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*

c. Reporting and Compliance Certification Requirements.

- 1. Specific Reporting/Certification Requirements. The Owner and/or Operator shall comply with the Reporting/Certification Requirements detailed in Condition 3– Table 1 of this permit, which are in addition to those of Conditions 3(c)(2) and 3(c)(3) of this permit. Each report that contains

any deviations from the terms of Condition 3– Table 1 shall identify the probable cause of the deviations and any corrective actions or preventative measures taken. *[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3 dated 12/11/00, 6.1.3.3.3.3 dated 12/11/00, and 6.1.3.3.3.4 dated 12/11/00]*

2. General Reporting Requirements.

i. The Owner and/or Operator shall submit to the Department a report of any required monitoring not later than the first day of August (covering the period from January 1 through June 30 of the current calendar year) and the first day of February (covering the period July 1 through December 31 of the previous calendar year) of each calendar year. Each report shall identify any deviations from the monitoring, record keeping, and reporting requirements under this permit; and the probable cause of the deviations; and any corrective actions or preventative measures taken. If no deviations have occurred, such shall be stated in the report. *[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3.1 dated 12/11/00, 6.1.3.3.2 dated 12/11/00, and 6.1.3.3.3.4 dated 12/11/00]*

ii. In addition to the semiannual monitoring reports required under Condition 3(c)(2)(i), the Owner and/or Operator shall submit to the Department supplemental written reports and/or notices identifying all deviations from permit conditions, probable cause of the deviations, and any corrective actions or preventative measures as follows: *[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3.3.3 dated 12/11/00 and 6.1.3.3.3.4 dated 12/11/00]*

A. If the Owner and/or Operator is claiming the affirmative defense of emergency or malfunction as provided in Condition 2(b)(5) of this permit, a notice of any deviation resulting from emergency or malfunction conditions shall be reported to the Department within two working days of the time when the technology-based emission limitations were exceeded. Such notice shall contain a description of the emergency or malfunction, any steps taken to mitigate emissions, and any corrective actions taken. *[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3.3.1 dated 12/11/00 and 6.7.3.4 dated 12/11/00]*

B. Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner: *[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3.3.3 dated 12/11/00 and 6.1.3.3.3.2 dated 12/11/00]*

1. By calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802, if the emission poses an imminent and substantial danger to public health, safety or the environment. *[Reference: 7 DE Admin. Code No 1130, Section 6.1.3.3.3.2 dated 12/11/2000]*

2. Other emissions in excess of any permit condition or emissions which create a condition of air pollution may be called in to the Environmental Emergency Notification and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax notifications may be revoked upon written notice to the Company by the Department in its sole discretion. *[Reference: 7 DE Admin. Code No 1130, Section 6.1.3.3.3.2 dated 12/11/2000]*

3. In addition to complying with Condition 3.c.2.ii.B. 1 and 2 of this permit, the Owner/Operator shall satisfy any reporting required by the "Reporting of a Discharge of a Pollutant or an Air Contaminant" regulation, within 30 calendar days of becoming aware of an occurrence subject to reporting pursuant to these conditions. All reports submitted to the Department shall be submitted in writing and shall include the following information: *[Reference 7 DE Admin. Code 1130 Sections 6.1.3.3.3.3, dated 12/11/2000 and 6.1.3.3.3.4 dated 12/11/2000]*

- i. The name and location of the facility;
- ii. The subject sources that caused the emissions;

- iii. The time and date of the first observation of the excess emissions;
- iv. The cause and expected duration of the excess emissions;
- v. For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission or operational limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
- vi. The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

Emissions on the same day from the same emission unit may be combined into one report. Emissions from the same cause that occur contemporaneously may also be combined into one report. The Owner/Operator shall submit an electronic copy of all required reports to the Department's compliance engineer assigned to the Refinery.

C. Discharges to the atmosphere in excess of any quantity specified in the **7 DE Admin. Code 1203** ("**Reporting of a Discharge of a Pollutant or an Air Contaminant**") shall be reported, immediately upon discovery and after activating the appropriate site emergency plan, either in person or to the Department's 24-hour Environmental Emergency Notification and Complaint line (1-800-662-8802). Discharges in compliance with this permit and excess emissions previously reported under Condition 3(c)(2)(ii)(B) of this permit are exempt from this reporting requirement. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.3.3.5 dated 12/11/00 and 7 DE Admin. Code 1203]*

iii. Prior to making a change as provided in Condition 4 [**Operational Flexibility**] of this permit the Owner and/or Operator shall give written notice to the Department and EPA at least seven calendar days before the change is to be made. *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*

A. The seven day period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*

B. If less than seven calendar days notice is provided because of a need to respond more quickly to such unanticipated conditions, the Owner and/or Operator shall provide notice to the Department and EPA as soon as possible after learning of the need to make the change, together with the reasons why advance notice could not be given. *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*

C. The written notice shall include all of the following information: *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*

- 1. The identification of the affected emission units and a description of the change to be made.
- 2. The date on which the change will occur.
- 3. Any changes in emissions.
- 4. Any permit terms and conditions that are affected, including any new applicable requirements.

iv. The Owner and/or Operator shall submit to the Department an annual emissions statement in accordance with **7 DE Admin. Code 1117** Section 7.0 not later than April 30 of each year, or other date as established by the Department, unless an extension by the Department is

granted. Such emissions statement shall cover the preceding calendar year. *[Reference: 7 DE Admin. Code 1117 Section 7.0 dated 1/11/93]*

- v. If required, the Owner and/or Operator shall submit to the Department a progress report for applicable requirements identified in Condition 5 – Table 1 of this permit. Such reports shall be submitted not later than the first day of August (covering the period from January 1 through June 30 of the current calendar year) and the first day of February (covering the period July 1 through December 31 of the previous calendar year) of each calendar year. Each progress report shall include the following: *[Reference: 7 DE Admin. Code 1130 Sections 5.4.8 dated 11/15/93 and 6.3.4 dated 12/11/00]*

- A. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance *were achieved*. *[Reference: 7 DE Admin. Code 1130 Section 6.3.4.1 dated 12/11/00]*

- B. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. *[Reference: 7 DE Admin. Code 1130 Section 6.3.4.2 dated 12/11/00]*

- vi. Nothing herein shall relieve the Owner and/or Operator from any reporting requirements under federal, state, or local laws. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.3.5 dated 12/11/00]*

3. General Compliance Certification Requirements.

- i. Compliance with terms and conditions of this permit shall be certified to the Department not later than the first day of February of each year unless the terms or conditions in Condition 3– Table 1 of this permit require compliance certifications to be submitted more frequently. Such certification shall cover the previous calendar year and shall be submitted on Form AQM-1001BB. The Compliance Certification shall include the following information: *[Reference: 7 DE Admin. Code 1130 Section 6.3.5.1 dated 12/11/00]*

- A. The identification of each term or condition of the permit that is the basis of the certification. *[Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.1 dated 12/11/00]*

- B. The Owner and/or Operator's current compliance status, as shown by monitoring data and other information reasonably available to the Owner and/or Operator. *[Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.2 dated 12/11/00]*

- C. Such certification shall indicate whether compliance was continuous or intermittent during the covered period. *[Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.3 dated 12/11/00]*

- D. The methods used for determining the compliance status of the Owner and/or Operator, currently and over the reporting period as required by the monitoring, record keeping, and reporting required under Condition 3. *[Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.4 dated 12/11/00]*

- E. Such other facts as the Department may require to determine the compliance status of the source. *[Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.5 dated 12/11/00]*

- ii. Each compliance certification shall be submitted to the Department and EPA and shall be certified in accordance with Condition 2(a) of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.3.5.4 dated 12/11/00]*

- iii. Any additional information possessed by the Owner/Operator that demonstrates noncompliance with any applicable requirement must also be used as the basis for compliance certifications. *[Reference 62 FR 8314, dated 2/24/97]*

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
aa. Emission Units No. 10: Wastewater Treatment Plant (WWTP) – Oily Sewer System		
<p>1. Volatile Organic Compounds (VOC):</p> <p>i. Emission Standard:</p> <p>A. VOC emissions shall not exceed 0.26 tons in any twelve consecutive months. [Reference: <u>APC-93/0350 (A1)</u> and 40 CFR 60.692-5 dated November 23, 1988]</p> <p>B. Benzene emissions shall not exceed 0.03 tons in any twelve consecutive months. [Reference: <u>APC-93/0350 (A1)</u>]</p> <p>ii. Operational Limitations: [Reference: <u>APC-93/0350 (A1)</u>]</p> <p>A. Except as provided in Operational Limitation (E) the Owner/Operator shall meet the following standards for each individual drain system in which waste is placed in accordance with §61.342(c)(1)(ii):</p> <p>1. The Owner/Operator shall operate and maintain on each drain system opening a cover and closed-vent system that routes all organic vapors vented from the drain system to a control device.</p> <p>2. The cover shall meet the following requirements:</p> <p>i. The cover and all openings (e.g., access hatches, sampling ports) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in § 61.355(h).</p> <p>ii. Each opening shall be maintained in</p>	<p>iii. Compliance Method:</p> <p>A. Compliance with Emission Standards (A) and (B) and Operational Limitation (F) (2) shall be based on Monitoring/Testing.</p> <p>B. Alternately, the Owner/Operator may analyze the daily monitoring data to establish a carbon canister change out schedule so that the carbon in each carbon adsorption location is replaced with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and either the organic concentration or the benzene concentration in the gas stream vented to the carbon adsorption system. The Owner/Operator shall obtain the Department's written approval prior to implementing any such replacement schedule.</p> <p>C. Compliance with Operational Limitation (A) shall be based on Monitoring/Testing.</p> <p>D. Compliance with operational limitation (B), (C), (D), (E), (F)(1) and (F)(3) shall be based on recordkeeping.</p> <p>iv. Monitoring/Testing</p> <p>The Owner/Operator shall comply with the following monitoring/testing requirements: [Reference: <u>APC-93/0350 (A1)</u>]</p> <p>A. The carbon adsorbers shall be monitored daily in accordance with the monitoring protocol in Attachment "D" of this permit. and by replacing the carbon immediately upon breakthrough. For the purpose of this paragraph, "breakthrough" is defined as any reading of 50 ppm volatile organic compounds</p>	<p>vi. Reporting:</p> <p>In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p> <p>A. Submit to the Department copies of the Quarterly and Annual reports sent to the US EPA in accordance with the requirements of 40 CFR Part 61, Subpart FF.</p> <p>B. RESERVED.</p> <p>C. RESERVED.</p> <p>D. RESERVED.</p> <p>E. RESERVED.</p> <p>vii. Certification:</p> <p>That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the drain system except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair.</p> <p>iii. If the cover and closed-vent system operate such that the individual drain system is maintained at a pressure less than atmospheric pressure, then paragraph (A)(2)(ii) does not apply to any opening that meets all of the following conditions:</p> <p>A. The purpose of the opening is to provide dilution air to reduce the explosion hazard;</p> <p>B. The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h); and</p> <p>C. The pressure is monitored continuously to ensure that the pressure in the individual drain system remains below atmospheric pressure.</p> <p>B. The closed-vent system and control device shall be designed and operated in</p>	<p>measured after the first canister at each location, and "immediately" shall mean 8 hours for canisters 55 gallons or less, 24 hours for canisters between 55 gallons and 20,000 pounds and 48 hours for canisters greater than 20,000 pounds. Attachment "D" to this permit specifies the location and size of each canister set.</p> <p>B. The Owner/Operator shall conduct periodic visual inspections in accordance with Section 61.346(a)(2). <i>[Reference: 40 CFR 61.346 dated 1/7/93]</i></p> <p>C. The Owner/Operator shall annually monitor the system for no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background using the methods specified in Section 61.355(h). <i>[Reference: 40 CFR 61.346 dated 1/7/93]</i></p> <p>v. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): <i>[Reference: Permit APC-93/0350 (A1)]</i></p> <p>A. Engineering design documentation for the carbon canister control devices installed on the OWS system. The documentation shall be retained for the life of the control equipment.</p> <p>B. A statement signed and dated by the owner or operator certifying that the closed-vent systems and control device are designed to operate at the documented performance level when the waste management unit vented to the control devices are or would be operating at the highest load or capacity expected to occur. The documentation shall be retained for the life of the control equipment.</p> <p>C. If engineering calculations are used to</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>accordance with § 61.349.</p> <p>C. Each cover seal, access hatch, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur and that access hatches and other openings are closed and gasketed properly.</p> <p>D. Except as provided in § 61.350, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification.</p> <p>E. As an alternative to complying with Operational Limitations (A) through (D), the Owner/Operator may elect to comply with the following requirements:</p> <ol style="list-style-type: none"> <u>1.</u> Each drain shall be equipped with water seal controls or a tightly sealed cap or plug. <u>2.</u> Each junction box shall be equipped With a cover and may have a vent pipe. The vent pipe shall be at least 90 cm (3 ft) in length and shall not exceed 10.2 cm (4 in) in diameter. <u>i.</u> Junction box covers shall have a tight seal around the edge and shall be kept in place at all times, except during inspection and maintenance. <u>ii.</u> One of the following methods shall be used to control emissions from the junction box vent pipe to the atmosphere: <ol style="list-style-type: none"> <u>A.</u> Equip the junction box with a 	<p>determine control device performance in accordance with § 61.349(c), then a design analysis for the control device that includes for example, specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the owner or operator, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts. The design analysis shall address the following vent stream characteristics and control device operating parameters for the carbon adsorption system: the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule. The documentation shall be retained for the life of the control equipment.</p> <p>E. A record for each visual inspection required by Operational Limitations (C) or (E) (4) that identifies a problem (such as a broken seal, gap or other problem) which could result in benzene emissions. The record shall include the date of the inspection, waste management unit and control equipment location where the problem is identified, a description of the problem, a description of the corrective action taken, and the date the corrective action was</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>system to prevent the flow of organic vapors from the junction box vent pipe to the atmosphere during normal operation. An example of such a system includes use of water seal controls on the junction box. A flow indicator shall be installed, operated, and maintained on each junction box vent pipe to ensure that organic vapors are not vented from the junction box to the atmosphere during normal operation.</p> <p><u>B.</u> Connect the junction box vent pipe to a closed-vent system and control device in accordance with § 61.349.</p> <p><u>3.</u> Each sewer line shall not be open to the atmosphere and shall be covered or enclosed in a manner so as to have no visual gaps or cracks in joints, seals, or other emission interfaces.</p> <p><u>4.</u> Equipment installed in accordance with paragraphs (E)(1), (E)(2), or (E)(3) or § 61.346 shall be inspected as follows:</p> <p><u>i.</u> Each drain using water seal controls shall be checked by visual or physical inspection initially and thereafter quarterly for indications of low water levels or other conditions that would reduce the effectiveness of water</p>	<p>completed.</p> <p>F. A record for each test of no detectable emissions required by operational limitations (A)(2)(i) and (F)(1). The record shall include the date the test was performed, background level measured during test, and maximum concentration indicated by the instrument reading measured for each potential leak interface. If detectable emissions are measured at a leak interface, then the record shall also include the waste management unit, control equipment, and leak interface location where detectable emissions were measured, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed.</p> <p>G. Dates of startup and shutdown of the closed-vent systems and control devices and periods when the closed-vent system and control device are not operated as designed.</p> <p>H. Records of dates and times when the control devices are monitored, when breakthrough is measured, and shall record the date and time that the existing carbon in the control devices are replaced with fresh carbon.</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>seal controls.</p> <p>ii. Each drain using a tightly sealed cap or plug shall be visually inspected initially and thereafter quarterly to ensure caps or plugs are in place and properly installed.</p> <p>iii. Each junction box shall be visually inspected initially and thereafter quarterly to ensure that the cover is in place and to ensure that the cover has a tight seal around the edge.</p> <p>iv. The unburied portion of each sewer line shall be visually inspected initially and thereafter quarterly for indication of cracks, gaps, or other problems that could result in benzene emissions.</p> <p>5. Except as provided in § 61.350, when a broken seal, gap, crack or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification.</p> <p>F. The closed vent system and carbon adsorption control devices shall be operated and maintained to meet the following requirements:</p> <p>1. Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods</p>		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>specified in § 61.355(h).</p> <p>2. To recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater.</p> <p>3. Be operated at all times when waste is placed in the waste management unit vented to the carbon adsorption control devices, except when maintenance or repair of the waste management unit cannot be completed without a shutdown of the Carbon Adsorption Control System.</p>		
ab. Emission Units No. 10: Wastewater Treatment Plant (WWTP) Unit No. 10: API/CPI Separators, Equalization Tank, Spill Diversion Tanks, Floatation Clarifier, Flocculation Tanks and Flash Mix Tank		
<p>1. Volatile Organic Compounds (VOC):</p> <p>i. Emission Standard for API/CPI Separators: [Reference: <u>APC-81/1008</u>, 40 CFR 60.692-5 dated 11/23/88 and 40 CFR 61.349(a)(2)(ii) dated 1/7/93]</p> <p>A. VOC emissions shall not exceed 3.4 tons in any twelve consecutive months.</p> <p>B. Benzene emissions shall not exceed 0.09 tons in any twelve consecutive months.</p> <p>ii. Equipment Standard/Operational Limitation for API/CPI Separators: [Reference: 40 CFR 61.351 and 40 CFR 61.352 dated 1/7/93, <u>APC-81/1008</u> and <u>APC-81/1009</u>]</p> <p>A. All Fixed-Roofs shall be operated and maintained according to the following requirements:</p>	<p>iv. Compliance Method:</p> <p>A. Compliance with emission standards A and B shall be demonstrated by following the monitoring protocol that is Attachment "E" of this permit. [Reference: <u>APC-81/1008</u>]</p> <p>B. Compliance with the Equipment Standards/Operational Limitations for API/CPI Separators, Equalization Tanks, Spill Diversion Tank, Flocculation Tanks and Flash Mix Tank shall be based on the monitoring/testing and recordkeeping requirements. [Reference: <u>Regulation 30, Section (6)(a)(3)</u>, dated 12/11/00]</p> <p>v. Monitoring/Testing: [Reference: <u>APC-81/1008</u>, 40 CFR 60.692-5 dated November 23, 1988 and 40 CFR 61.349(a)(2)(ii) dated January 7, 1993]</p>	<p>vii: Reporting:</p> <p>In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: <u>7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1</u> dated 12/11/00 and 40 CFR 61.357 dated 1/7/93]</p> <p>A. Submit to the Department copies of the Quarterly and Annual reports sent to the US EPA in accordance with the requirements of 40 CFR Part 61, Subpart FF</p> <p>B. RESERVED</p> <p>C. RESERVED</p> <p>D. RESERVED</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<ol style="list-style-type: none"> 1. The cover and all openings (access hatches, sampling ports, gauge wells, etc.) shall operate with no detectable emissions, as indicated by an instrument reading of less than 500 <i>ppmv</i> above background, as determined initially, and thereafter at least one (1)-year intervals by the methods specified in 40 CFR 61.355(h) (1993). 2. Each opening shall be maintained in a closed, sealed position (covered by a lid that is gasketed and latched) at all times that waste is in the oil-water separator, except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance or repair. B. Each floating roof shall be equipped with a closure device between the wall of the Separator and the roof edge. The closure device shall consist of a primary seal and a secondary seal. C. The primary seal on each floating roof shall be a liquid-mounting seal meeting the following requirements: <ol style="list-style-type: none"> 1. A liquid-mounted seal means a foam-filled or liquid-filled seal mounted in contact with the liquid between the wall of the Separator and the floating roof. 2. The gap width between the primary seal and the Separator wall shall not exceed 3.8 <i>cm</i> (1.5 <i>in.</i>) at any time. 3. The total gap area between the primary seal and the Separator wall shall not exceed 67 <i>cm</i>²/<i>m</i> (3.2 <i>in.</i>²/<i>ft.</i>) of Separator wall perimeter. 	<ol style="list-style-type: none"> A. Measurement of primary seal gaps shall be performed within sixty (60) calendar days after initial installation of the floating roofs and introduction of refinery wastewater or sixty (60) calendar days after the equipment is placed back into service, and once every five (5) years thereafter. Measurement of secondary seal gaps shall be performed within sixty (60) calendar days after the equipment is placed in service, and once every year thereafter. B. The Owner/Operator shall perform the following inspections on the flocculation, spill diversion and equalization tanks: <ol style="list-style-type: none"> 1. Semiannual inspections to ensure compliance with the equipment standards/operational limitations for the flocculation, spill diversion and equalization tanks (including visual inspection of the secondary seal gap); and measure the secondary seal gap annually according to the procedure described in paragraph C below. C. Gap area shall be calculated by physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a 0.32 <i>cm</i> (0.125 <i>in</i>) uniform diameter probe passes freely (without forcing or binding against the seal) between the seal and the tank wall. Summing these gap areas will determine the accumulated gap area. D. During periods when any API bay is uncovered, conduct a daily check of the presence of a water seal to ensure that vapors from other bays are not escaping to the 	<p>viii. Certification:</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>D. The secondary seal on each floating roof shall be above the primary seal and cover the annular space between the floating roof and the wall of the Separator.</p> <p>1. The gap width between the secondary seal and the Separator wall shall not exceed 1.3 <i>cm</i> (0.5 <i>in.</i>) at any point.</p> <p>2. The total gap area between the secondary seal and the Separator wall shall not exceed 6.7 <i>cm</i>²/<i>m</i> (0.32 <i>in.</i>²/<i>ft.</i>) of Separator wall perimeter.</p> <p>E. The maximum gap width and total gap area shall be determined by the methods and procedures specified in 40 CFR 60.696(d).</p> <p>F. Necessary repairs shall be made within thirty (30) calendar days of identification of seals not meeting the requirements listed in paragraphs (C) and (D) of this Condition.</p> <p>G. Except as provided in Operational Limitation I, each opening in the roof shall be equipped with a gasketed cover, seal or lid, which shall be maintained in a closed position at all times, except during inspection and maintenance.</p> <p>H. The roof shall be floated on the liquid (i.e., off the roof supports) at all times except during a condition of low flow rate.</p> <p>I. The floating roof may be equipped with one (1) or more emergency roof drains for removal of storm water. Each emergency roof drain shall be fitted with a slotted membrane fabric cover that covers at least ninety percent (90%) of the drain opening area, or a flexible fabric sleeve seal.</p> <p>J. Access doors and other openings shall be visually inspected initially and semiannually</p>	<p>atmosphere through the out of service bay.</p> <p>vi. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: <i>[Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]</i></p> <p>A. A statement signed and dated by the Owner/Operator certifying that the closed vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is, or would be, operating at the highest load or capacity expected to occur. <i>[Reference: 40 CFR 61.356(f)(1) dated 1/7/93]</i></p> <p>B. For a carbon adsorption system that does not regenerate the carbon bed directly on-site in the control device, such as a carbon canister, records of the design analysis which takes into account the vent stream composition, constituent concentration, flow rate, relative humidity and temperature. Records shall also be maintained for the following parameters established by the design analysis: the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule. <i>[Reference: 40 CFR 61, Subpart FF, Section 61.356(f)(2)(G) dated 1/7/93]</i></p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>thereafter to ensure that there is a tight fit around the edges and to identify other problems that could result in VOC emissions.</p> <p>K. When a broken seal or gasket on an access door or other opening is identified, it shall be repaired as soon as possible, but not later than thirty (30) calendar days after it is identified, except if the repair is technically impossible without a complete or partial Refinery or process unit shutdown. Repair of such equipment shall occur before the end of the next Refinery or process unit shutdown.</p> <p>L. The Closed-Vent System shall be operated and maintained according to the following requirements:</p> <ol style="list-style-type: none"> 1. Operate with no detectable emissions, as indicated by an instrument reading of less than 500 <i>ppmv</i> above background, as determined initially, and thereafter at least at one (1)-year intervals by the methods specified in 40 CFR 61.355(h). 2. All gauging and sampling devices shall be gas-tight, except when gauging or sampling is taking place. 3. One (1) or more devices which vent directly to the atmosphere may be used on the Closed-Vent System, provided that each device remains in a closed, sealed position during normal operations, except when the device needs to open to prevent physical damage or permanent deformation of the Closed-Vent System resulting from malfunction of the Unit in accordance with good engineering and safety practices for handling flammable, 	<ol style="list-style-type: none"> C. A record for each test of no detectable emissions in accordance with 40 CFR 61.355(h). <i>[Reference: 40 CFR 61, Subpart FF, Section 61.355(h) dated 1/7/93]</i> D. The Owner/Operator shall maintain records of all inspections and seal gap measurements of the equalization tanks and spill diversion tank in accordance with the procedures in Section 60.115b. <i>[Reference: 40 CFR 60.115b dated April 8, 1987, 40 CFR 61.351 and Permit: APC-81/1009]</i> E. The Owner/Operator shall maintain records of all inspections and seal gap measurements of oil water separator floating roofs in accordance with NSPS Alternative Standards for oil waste separators. <i>[Reference: 40 CFR 60.693-2 dated August 18, 1995, 40 CFR 61.352]</i> F. Log of operating hours when any API bay is taken out of service and the operator's verification of the presence of a water seal. <i>[Reference: Permit: APC-81/1008]</i> 	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>explosive or other hazardous materials.</p> <p>M. The Closed-Vent and Carbon Adsorption Control Systems shall be operated at all times when waste is placed in the waste management unit vented to the Carbon Adsorption Control System, except when maintenance or repair of the waste management unit cannot be completed without a shutdown of the Carbon Adsorption Control System.</p> <p>N. When an API Separator bay is uncovered and out of service for maintenance or repair, its water seal shall be established immediately and maintained continuously for the entire duration of the out of service period.</p> <p>O. The carbon adsorption system shall be operated and maintained to recover or control the VOC emissions vented to it with an efficiency of 95 weight percent or greater or to recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater.</p> <p>iii. Equipment Standard/Operational Limitations for Equalization, Flocculation and Spill Diversion Tanks: <i>[Reference: 40 CFR 60.112b(a)(2) dated April 8, 1987, 40 CFR 61.351 Permit: APC-81/1009, and Permit:APC-94/0710]</i></p> <p>A. The two equalization and one spill diversion tank shall be fitted with:</p> <p><u>1.</u> A continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal); or</p>		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>2. A closure or other device approved by the Department as part of the State Implementation Plan ("SIP") that controls VOC emissions with an effectiveness that is equal to or greater than the tank's continuous secondary seal.</p> <p>B. Seals and seal fabric shall have no holes, tears or other openings.</p> <p>C. Seals must be intact and uniformly in place around the circumference of the floating roof, between the floating roof and the tank wall.</p> <p>D. The width of any portion of any gap shall not exceed 1.27 centimeters (cm) (0.5 inch) and the accumulated area of gaps exceeding 0.32 centimeters (cm) (0.125 inch) in width between the secondary seal and the tank wall shall not exceed 21.2 square centimeters per meter (cm^2/m) (1.0 square inch per foot) (in^2/ft) of tank diameter.</p> <p>E. All openings in the external floating roof, except for automatic bleeder vents and leg sleeves, shall be equipped with:</p> <p>1. Covers, seals or lids in the closed position, except for when the openings are in actual use; and,</p> <p>2. Projections into the tank that remain below the liquid surface at all times.</p> <p>F. Automatic bleeder vents must be closed at all times, except when the roof is being floated-off the leg supports.</p> <p>[Reference: 40 CFR 60.693-2 dated August 18, 1995, 40 CFR 61.352, and Permit: <u>APC-</u></p>		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<i>81/1008]</i>		
ac. Emission Unit No. 10: Wastewater Treatment Plant (WWTP) – Dissolved Nitrogen Floatation, Oil Recovery System and Vapor Combustion Unit (VCU); Emission Point 10-1		
1. Particulate Matter: i. Emission Standard: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mm BTU heat input, maximum 2-hour average. <i>[Reference: 7 DE Admin. Code 1104 No. 4 Section 2.1 dated 2/1/81]</i>	ii. Compliance Method: A. Compliance with the Emission Standard shall be based on the fuel usage, type and quality. <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> iii. Monitoring/Testing: None in addition to those listed in Condition 3 Table 1. ac.3.iii. <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): the type and rolling twelve month fuel usage by the VCU.	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>
2. Sulfur dioxide (SO ₂): i. Operational Limitation: In addition to an inerting stream identified as Waste Stream "A" in Drawing No. B-VC-A05733-150, commercial grade, desulfurized propane shall be the only fuel fired in the VCU. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i>	ii. Compliance Method: Compliance with the Operational Limitation shall be based on monitoring and recordkeeping. <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> iii. Monitoring/Testing: None in addition to those listed in Condition 3 Table 1. ac.3.iii. <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> iv. Recordkeeping: <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> Comply with Condition 3 Table 1.ac.1.iv.	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>
3. Nitrogen oxides (NO _x):	iii. Compliance Method:	vi. Reporting

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>i. Operational Limitation: <i>[Reference Permit: APC-94/0710]</i></p> <p>A. Propane usage by the VCU shall not exceed 260 gallons per hour on a twelve month rolling average basis, which will ensure that NOx emissions do not exceed 21.6 tons in any twelve consecutive months.</p> <p>B. RESERVED</p>	<p>A. Compliance with the operational limitations A and B shall be based on recordkeeping. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>iv. Monitoring/Testing: The Owner/Operator shall continuously monitor the fuel usage by the VCU. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>v. Recordkeeping: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> The following records shall be maintained in accordance with Condition 3(b): the type and rolling twelve month fuel usage by the VCU.</p>	<p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vii. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>
<p>4. Volatile organic compounds (VOC)</p> <p>i. Emission Standard: VOC emissions shall not exceed 20 ppmv (dry) corrected to 3 percent O₂ and 0.28 tons in any rolling twelve month period from the VCU. <i>[Reference: Permit: APC-94/0710 and 40 CFR 61.349(a)(2)(i)(B) dated January 7, 1993]</i></p> <p>ii. Operational Limitation:</p> <p>A. The VCU shall not operate below a Temperature of 1,300°F except during a 4 hour start up period. Start up is defined as the time when the waste gases are introduced into the VCU. <i>[Reference: Permit: APC-94/0710]</i></p> <p>B. The dissolved nitrogen floatation and flocculation system, oil recovery</p>	<p>iv. Compliance Method: <i>[Reference: Permit: APC-94/0710 and 40 CFR 61.354(c)(1) dated January 7, 1993]</i></p> <p>A. Compliance with the Emission Standard shall be based on Monitoring/Testing.</p> <p>B. Compliance with the Operational Limitation (A) shall be based on compliance with the minimum operating temperature of 1300°F (defined as no more than 50°F below 1300°F in any rolling three hour period of operation).</p> <p>C. Compliance with the Operational Limitation (B) shall be based on Monitoring/Testing.</p> <p>D. Compliance with the Operational Limitation (C) shall be based on Recordkeeping.</p> <p>E. Compliance with the Equipment Standard shall be based on recordkeeping.</p> <p>v. Monitoring/Testing: A. The Owner/Operator shall monitor the temperature of the firebox continuously.</p>	<p>vii. Reporting: <i>[Reference: 40 CFR 61.357 dated 1/7/93]</i> In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> A Submit to the Department copies of the Quarterly and Annual reports sent to the US EPA in accordance with the requirements of 40 CFR Part 61, Subpart FF</p> <p>B. RESERVED</p> <p>viii. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>system and VCU shall operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background using the methods specified in Section 61.355(h). [Reference: 40CFR 61.351 and 40 CFR 61.352 dated 1/7/93 and APC-94/0710].</p> <p>C. The VCU shall be operating properly whenever any of the following equipment is in operation except during periods of maintenance on the VCU or during emergency situations that require the shutdown of the VCU:</p> <ul style="list-style-type: none"> • Crude Recovery Tank (372-TC-M) • Sludge Holding Tank (349-TM-M) • DNF Tank 326 • DNF Tank 305 • DNF Tank 306 • Slop Oil Tank 10-D-109 • Slop Oil Tank 10-D-202 • Day Tank 356-TC-3 • Day Tank 357-TC-3 • Day Tank 358-TC-3 <p>iii. Equipment Standard: The VCU shall be equipped with a temperature monitoring device equipped with a continuous recorder.</p>	<p>[Reference: Permit APC-94/0710]</p> <p>B. The Owner/Operator shall annually monitor the system for no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background using the methods specified in Section 61.355(h). [Reference: 40 CFR 61.355 dated 1/7/93]</p> <p>vi. Recordkeeping: Reference: Permit: APC-94/0710 and 40 CFR 61.356 dated January 7, 1993]</p> <p>The Owner/Operator shall maintain the following records in accordance with Condition 3(b) unless a longer period is otherwise specified:</p> <p>A. Dates of start-up and shutdown of the closed vent system and VCU.</p> <p>B. A description of the operating parameter(s) to be monitored to ensure that the VCU will be operated in conformance with all permit conditions and regulatory requirements, and the VCU's design specifications and an explanation of the criteria used for selection of that parameter(s). This documentation shall be retained for the life of the VCU.</p> <p>C. A record for each test of no detectable emissions in accordance with 40 CFR 61.355 (h).</p> <p>D. Maintain continuous records of the temperature of the gas stream in the combustion zone of the VCU and record of all three (3) hour periods of operation during which the average temperature of the gas stream in the combustion zone is more than 28°C (50°F) below the combustion zone</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>The temperature monitoring device shall have an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or ± 0.5 $^{\circ}\text{C}$, whichever is greater. <i>[Reference: Permit: APC-94/0710, and 40 CFR 61.354(c)(1) dated January 7, 1993]</i></p>	<p>temperature.</p> <p>E. A statement signed and dated by the Owner/Operator certifying that the closed vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is, or would be, operating at the highest load or capacity expected to occur. <i>[Reference: 40 CFR 61.356(f)(1) dated 1/7/93.]</i></p>	
<p>5. Visible emissions:</p> <p>i. Emission standard: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. <i>[Reference: 7 DE Admin. Code 1114, Section 2.1, dated 7/17/84].</i></p>	<p>ii. Compliance Method: Compliance shall be demonstrated by monitoring and testing requirements, and recordkeeping. <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing:</p> <p>A. The Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation.</p> <p>1. If visible emissions are observed, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with Paragraph B below.</p> <p>2. If no visible emissions are observed, no further action is required.</p> <p>B.If required under paragraph A above, the Owner/Operator shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual observations at fifteen-second intervals for a period of not less than one</p>	<p>v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. <i>[Reference Reg. No. 20, Section 1.5(c) dated 12/7/88].</i></p>	
ad. Emission Unit No. 10: Gasoline Dispensing Facility		
<p>1. Volatile Organic Compounds (VOC):</p> <p>i. Emission Standard</p> <p>A. During loading of the aboveground storage tank, the Stage I vapor recovery system for the 4000 gallon aboveground storage tank shall be returned by way of the vapor balance system which returns no less than 90 percent by weight of the vapors to a vapor tight delivery vessel. <i>[Reference: Permit: <u>APC-95/0862-OI</u>]</i></p> <p>ii. Operational Limitation: <i>[Reference: Permit: <u>APC-95/0862-OI</u> dated April 28, 1995 and Permit: <u>APC-95/0862-OII</u>]</i></p> <p>A. All gaskets and seals in the vapor balance system of the Dual Point Stage I Vapor Recovery System shall</p>	<p>iii. Compliance Method:</p> <p>A. Compliance with Emission standard (A). shall be based on compliance with the Operational Limitation. <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>B. Compliance with the Operational Limitations shall be based on recordkeeping. <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>iv. Monitoring/Testing: <i>[Reference: Permit: <u>APC-95/0863-OII</u> and 7 DE Admin. Code 1124, Section 36, dated 1/11/02]</i></p> <p>A. A pressure/decay leak test shall be conducted as described in Regulation 1124, Section 36 paragraph (d)(1)(i)(A) once every five years.</p> <p>B. An annual Healy Aboveground Applications System Test shall be conducted.</p>	<p>vi. Reporting:</p> <p>A. In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <ol style="list-style-type: none"> 1. Report excess emissions to the Department's Underground Storage Tank Branch. 2. Provide written notification to the Department 10 working days prior to any test operation, unless permission is granted to the contrary; and 3. Report test failures to the Department within 24 hours of the failure. 4. Within 30 days of a test date, submit to the Department the actual test date, the testing Owner/Operator's name, address and phone number,

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>be in place and in good condition so as to prevent gasoline vapors from being released when the vapor balance system is not in use.</p> <p>B. For the Healy Stage II Vapor Recovery System:</p> <ol style="list-style-type: none"> 1. The maximum length of the hose must not exceed 13 feet; 2. Then maximum dispensing rate is limited to 10 gallons or less per minute; and 3. Model 200 nozzles or upgraded nozzles shall be used with the Model 100 Jet Pump. 	<p>C. At least one representative from the Owner/Operator must have been trained to operate and maintain the Stage II Healy System in accordance with Regulation 1124, Section 36 paragraph (c)(2).</p> <p>D. Personnel trained pursuant to Monitoring/Testing requirement (C) shall perform daily routine maintenance inspections in accordance with manufacturer's specifications.</p> <p>v. Recordkeeping: <i>[Reference: Permit: APC-95/0863-OII and 7 DE Admin. Code 1124, Section 36, dated 1/11/02]</i></p> <p>A. The following records shall be maintained in accordance with Condition 3(b):</p> <ol style="list-style-type: none"> 1. Record of daily visual inspections and any maintenance conducted on the Stage II system. 2. Pressure/decay and the Healy Aboveground Applications System Test results 3. Daily records showing the quantity of gasoline delivered to the site. 4. Proof of attendance and completion of a training program as specified in Regulation 24, Section 36 paragraph (c)(2)(ii). 5. Compliance records, including warnings, notices of violation and other compliance records issued by the Department to the facility. <p>B. A conspicuous sign shall be posted with</p>	<p>and, if any corrective action was performed by the testing Owner/Operator, all information specified in Regulation 24, Section 36, paragraph (f)(4). <i>[Reference: Permits: APC-95/0862-OI and APC-95/0863-OII. and Reg. No. 24, Section 36, dated 1/11/02.]</i></p> <p>vii. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>instructions on how to correctly dispense gasoline.</p> <p>C. A conspicuous "Out of Order" sign must be posted on any nozzle associated with any part of the Stage II system that is found to be defective.</p> <p>D. The Department emergency reporting number shall be posted conspicuously.</p>	
b. Emission Unit No. 15: Marine Vapor Recovery (MVR) System; Emission points 15-1 and 15-2		
<p>1. Conditions Applicable to Multiple Pollutants</p> <p>i. Operational Limitation:</p> <p>A. Commercial grade, desulfurized natural gas shall be the only fuel fired in this unit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.1.2 dated 12/11/00]</i></p> <p>B. RESERVED</p>	<p>ii. Compliance Method:</p> <p>A. Compliance with the operational limitation A shall be based on the fuel type and quality. <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>B. RESERVED</p> <p>iii. Monitoring/Testing:</p> <p>The Owner/Operator shall monitor the fuel usage of the MVR VCU continuously. <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>iv. Recordkeeping:</p> <p>The following records shall be maintained in accordance with Condition 3(b):</p> <p>The type of fuel combusted in the MVR VCU and hourly fuel usage. <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p>	<p>v. Reporting:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification:</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>
<p>2. Particulate Matter:</p> <p>i. Emission Standard:</p> <p>The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3lb/mmBTU heat</p>	<p>ii. Compliance Method:</p> <p>A. Compliance with the Emission Standard shall be based on the fuel type and quality. <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p>	<p>v. Reporting:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
input, maximum 2-hour average. <i>[Reference: 7 DE Admin. Code 110 4 Section 2.1 dated 2/1/81]</i>	iii. Monitoring/Testing: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1. b. 1.iii. iv. Recordkeeping Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1. b. 1 iv.	vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>
3. Nitrogen oxides (NO _x) i. Emission Standard: NO _x emissions shall not exceed 61.3 lb/hour and 22.3 tons in any twelve consecutive months. <i>[Reference: Permit: APC-95/0471 (A 2)]</i>	ii. Compliance Method: A. Compliance with the Emission Standard shall be based on Monitoring/Testing and Recordkeeping requirements. <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> iii. Monitoring/Testing: A. The Owner/Operator shall conduct a Department approved stack test once every 5 years. <i>[Reference: Permit APC-95/0471 (A 2)2]</i> iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1. b. 1 iv.	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>
4. Carbon monoxide (CO): i. Emission Standards: CO emissions shall not exceed 153.2 lb/hour and 55.7 tons in any twelve consecutive months. <i>[Reference: Permit: APC-95/0471 (A 2)]</i>	ii. Compliance Method: A. Compliance with the emission standard shall be based on Monitoring/Testing and Recordkeeping requirements. <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i>	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>iii. Monitoring/Testing: A. The Owner/Operator shall conduct a Department approved stack test once every 5 years. [Reference: Permit <u>APC-95/0471 (A 2)</u>]</p> <p>iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1. b. 1 iv.</p>	<p>vi. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p>
<p>5. Volatile Organic Compounds (VOCs)</p> <p>i. Emission Standard: A. VOC emissions shall not exceed 151 tons in any twelve consecutive months. [Reference: Permit: <u>APC-95/0471 (A 2)</u>]</p> <p>B. Vapors displaced during barge loading operations shall be collected and routed through the marine vapor control system and shall be reduced by 98 weight percent or to 1000 ppmv of VOC.</p> <p>ii. Operational Limitations: [Reference: Permit: <u>APC-95/0471 (A 2)</u>, 40 CFR §60.18 dated October 17, 2000, 40 CFR §63.11 dated October 17, 2000 and 40 CFR 63.56(b)(1), (b)(3) and (b)(3) dated September 19, 1995]</p> <p>A. Barge loading of gasoline products shall not exceed the following rates: 1. 35,000 barrels hour when loading simultaneously at two</p>	<p>iii. Compliance Method: A. Compliance with Emission Standard (A) and Operational Limitation (H) shall be based on all of the following: [Reference: Permit: <u>APC-95/0471 (A 2)</u>, 40 CFR §60.18 dated October 17, 2000, 40 CFR §63.11 dated October 17, 2000]</p> <ol style="list-style-type: none"> 1. Operating the VCUs in accordance with 40 CFR 60.18, and with the continuous presence of a flame at the pilot during the entire loading cycle. 2. Compliance with all of the Operational Limitations. 3. Operating a calibrated and maintained sensing device to indicate the continuous presence of a flame at the pilot light during the entire loading cycle. <p>B. Compliance with Emission Standard (B) shall be based upon monitoring/testing and recordkeeping requirements to demonstrate the 98% destruction efficiency or by CEMS to demonstrate</p>	<p>vi. Reporting Requirements: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p> <p>vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>piers; and</p> <p>2. 25,000 barrels per hour at one pier</p> <p>B. The rolling twelve month throughput of gasoline products shall not exceed 25,463,000 barrels.</p> <p>C. The vapors collected at one loading berth shall not pass through another loading berth to the atmosphere.</p> <p>D. Marine tank vessel loading operations shall be limited to those vessels that are equipped with vapor collection equipment that is compatible with the terminal's vapor collection system.</p> <p>E. Marine tank vessel loading operations shall be limited to those vessels that are vapor tight and that are connected to the vapor collection system.</p> <p>F. Marine vessel loading operations may be carried out only when the marine vessels have been connected to the loading rack's vapor collection system and which have current vapor tightness certification in accordance with the requirements of 40 CFR 63.563(a)(4) and have been demonstrated to be vapor tight within the preceding (12) months.</p> <p>G. No barge loading operations of gasoline products shall be conducted</p>	<p>compliance with the 1000 ppmv limit.</p> <p>C. Compliance with the Operational Limitations shall be based on the monitoring/testing and recordkeeping requirements of this condition. <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.2 dated 12/11/00]</i></p> <p>iv. Monitoring/Testing: <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. The Owner/Operator shall continuously monitor the hourly loading rate of all gasoline products at each pier during loading operations.</p> <p>B. A sensing device shall be calibrated, maintained and operated to indicate the continuous presence of a flame at the pilot light during the entire loading cycle. <i>[Reference: Permit: APC-95/0471 (A 2), 40 CFR §60.18 dated October 17, 2000, 40 CFR §63.11 dated October 17, 2000]</i></p> <p>C. The Owner/Operator shall conduct a Department approved stack test once every 5 years. <i>Reference: Permit: APC-95/0471 (A 2)]</i></p> <p>D. If the Owner/Operator decides to install a CEMS, the CEMS shall comply with Quality Assurance procedures in 40 CFR Part 60 Appendix "F".</p> <p>v. Recordkeeping: In addition to the records required by §63.567, the following records shall be maintained in accordance with Condition 3(b):</p> <p>A. RESERVED.</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>unless the MVR VCUs is/are operating properly. Proper operation is defined as operating the VCUs in accordance with 40 CFR 60.18, and with the continuous presence of a flame at the pilot during the entire loading cycle.</p> <p>H. Marine vessel loading operations shall not be conducted unless the vapor control system is working properly.</p> <p>I. The Owner/Operator shall comply with the operation and maintenance requirements for air pollution control equipment in accordance with the provisions of 40 CFR 63.562(e).</p>	<p>B. RESERVED.</p> <p>C. Continuous records of pilot flame monitoring.</p> <p>D. Records of all periods of operation during which the pilot flame is absent during the loading cycle.</p> <p>E. The hourly throughput, type of product, number of piers used and duration of each loading cycle.</p> <p>F. Any flare system that is designed to cease operation upon loss of pilot and that automatically shuts down vessel loading and isolates the vessel vent stream from the flare by closing automatic block valves shall be exempt from the requirements of (C) and (D) above.</p> <p>G. For each marine vessel the Owner/Operator shall maintain up-to-date documentation of the vapor tightness test results to include as a minimum the following:</p> <ol style="list-style-type: none"> <u>1.</u> Marine tank vessel owner(s) name(s) and address(s). <u>2.</u> Marine tank vessel identification number. <u>3.</u> Date and location of test. <u>4.</u> Test results. <u>5.</u> Name and signature of tester. <u>6.</u> Witnessing inspector: name, signature and affiliation. <p>H. The written operation and maintenance</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	plan required by 63.562(e).	
<p>6. Visible Emissions:</p> <p>i. Emission Standard: The MVR VCUs shall be designed for and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hour period. <i>[Reference: 7 DE Admin. Code 1114, Section 2.1, dated 7/17/84, 40 CFR 60, Subpart A, §60.18(c)(1), dated 7/1/00 and 40 CFR 63, Subpart A §63.11(a)(4) dated 7/1/00]</i></p>	<p>ii. Compliance Method:</p> <p>A. Compliance with the Emission Standard shall be based on Monitoring/Testing requirements. <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing:</p> <p>A. Visible emissions from the MVR VCUs shall be monitored as follows: Each day the MVR VCUs are operated, the Owner/Operator shall conduct a qualitative observation of the flare using Method 22 to evaluate the presence or absence of smoke and/or visible air contaminants while the flare is in operation. <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>B. If visible emissions are detected during the daily qualitative survey of visible emissions or is observed at any other time, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (C) below. If no visible emissions are observed, no further action is required.</p> <p>C. If required under paragraph B above, the Owner/Operator shall, in accordance with 7 DE Admin. Code Section 1.5.3 of Regulation No. 20, conduct visual observations at fifteen-second intervals for a period of not less than one hour except that the observations may be discontinued</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>whenever a violation of the standard is recorded or if operations at the MVR VCU are ceased. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. <i>[Reference 7 DE Admin. Code 1120, Section 1.5(c) dated 12/7/88].</i></p> <p>iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): Records of qualitative emission observations and Method 9 evaluations when emissions are observed.</p>	
c. Emission Unit No. 21: Crude Unit; Crude Unit Atmospheric Tower Heater 21-H-701, and Crude Unit Vacuum tower Heater 21-H-2. Emission Point 21-1		
<p>1. Conditions Applicable to Multiple Pollutants :</p> <p>i. Operational Limitation:</p> <p>A. The throughput to the crude unit shall not exceed 191,100 BPD on a twelve month rolling average basis. <i>[Reference: APC-81/0828 (A1)]</i></p> <p>B. The heat input to Unit 21-H-701 shall not exceed 490 mmBtu/hr on a twelve month rolling average basis and 530 mmBtu/hr on a twenty-four hour rolling average basis. <i>[Reference: Permit:APC-95/0570 (A 2)]</i></p>	<p>ii. Compliance Method: Compliance with the Operational Limitations shall be based on monitoring/testing and recordkeeping requirements. . <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing: . <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. The Owner/Operator shall continuously monitor the following:</p> <p>1. Daily fresh feed throughput to the Crude unit and determine the rolling 12 month average in barrels per calendar day.</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>C. The heat input to 21-H-2 shall not exceed 249 mmBtu/hour on a 365 day rolling average basis. <i>[Reference: Permit:APC-81/0784]</i></p> <p>D. The emission standards in conditions (c) (2) through (c)(6) below shall not apply for a period of twenty-four (24) hours from the time that fuel gas flow is started to the heater and for a period of twenty-four (24) hours from the time that black oil charge to the crude unit is stopped. <i>[Reference: Permit:APC-95/0570 (A 2)]</i></p>	<p>2. Monitor the fuel usage by 21-H-701 and 21-H-2.</p> <p>B. The Owner/Operator shall obtain a daily sample of the fuel gas combusted in 21-H-701 and 21-H-2 and analyze it to determine the HHV of the fuel gas.</p> <p>iv. Recordkeeping: <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> The following records shall be maintained in accordance with Condition 3(b): A. Rolling 12 month average throughout of fresh feed to the crude unit in MBPD. B. The rolling 24 hour and rolling 12 month heat input calculated from the hourly fuel gas flow and the HHV obtained from daily sampling. C. Type of fuel combusted in 21-H-701 and 21-h-2 and fuel usage.</p>	
<p>2. Particulate Matter:</p> <p>i. Emission Standard:</p> <p>A. For 21-H-2: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBTU heat input, maximum 2-hour average. <i>[Reference: 7 DE Admin. Code 110 4 Section 2.1 dated 2/1/81]</i></p> <p>B. For 21-H-701: PM₁₀ emissions shall not exceed 0.02 lb/mmBtu and 42.9 tons in any rolling twelve month period (inclusive of H₂SO₄ emissions). <i>[Reference: 7 DE Admin. Code 110 4 Section 2.1 dated 2/1/81 and Permit:APC-95/0570 (A2)]</i></p> <p>ii. Operational Limitation:</p> <p>A. With the exception of Operational</p>	<p>iii. Compliance Method:</p> <p>A. Compliance with Emission Standards (B) shall be based on the stack test based emission factor and the rolling 12 month fuel usage. Compliance with Emission Standard (A) shall be based on the fuel type and quality.<i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>iv. Monitoring/Testing: <i>[Reference: APC-95/0570 (A2)] and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. RESERVED B. The Owner/Operator shall continuously monitor the H₂S content in the RFG. C. RESERVED D. The Owner/Operator shall conduct a stack</p>	<p>vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vii. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>Limitation (B) process heaters 21-H-701 and 21-H-2 shall only combust natural gas or desulfurized RFG. : <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2 dated 12/11/00]</i></p> <p>B. 21-H-701 may combust process vent gas from the Merox system oxidizer column 21-C-104. <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2 dated 12/11/00]</i></p>	<p>test every five years to determine the emission factor in terms of lb/mmBtu in accordance with Methods 5B/202, or any other testing methodology approved by the Department.</p> <p>v. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1. c. 1. iv.</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>3. Sulfur dioxide (SO₂):</p> <p>i. Emission Standards:</p> <p>A. Except as allowed by Operational Limitation 2.ii.A. above, the Owner/Operator shall not burn in any fuel gas combustion device any fuel gas that contains H₂S in excess of 0.1 grain/DSCF on a three hour rolling average. <i>[Reference : 7 DE Admin. Code 1120, Section 11 dated 11/27/85 and 40 CFR 60.104(a)(1) dated 10/17/2000]</i></p> <p>B. SO₂ emissions from 21-H-701 shall not exceed 48.1 tons in any rolling twelve month period. <i>[Reference: Permit:APC-95/0570 (A 2)]</i></p>	<p>ii. Compliance Method: <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. Compliance with Emission Standard A shall be based on the H₂S CEMS for the RFG and on the monitoring requirements required by the AMP.</p> <p>B. Compliance with Emission Standard B shall be based on the rolling twelve month fuel usage and the rolling twelve month average sulfur content of the fuel as determined using H₂S CMS.</p> <p>iii. Monitoring/Testing: <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. The H₂S content in RFG shall be continuously monitored using CMS.</p> <p>B. The H₂S CMS shall comply with Performance Specification 7 of 40 CFR 60, Appendix “B”.</p> <p>C. Quality Assurance requirements for the H₂S CMS shall be in accordance with the procedures described in 40 CFR 60, Appendix “F”.</p> <p>iv. Recordkeeping: <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.2 dated 12/11/00]</i></p> <p>The following records shall be maintained in accordance with Condition 3(b):</p> <p>A. Fuel usage, rolling average 12 month sulfur content as measured by H₂S CEMS and all H₂S CEMS calibration, maintenance, quarterly cylinder gas audits and annual relative accuracy test audits.</p>	<p>v. Reporting</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification:</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>4. Nitrogen oxides (NO_x):</p> <p>i. Emission Standard:</p> <p>A. For 21-H-701: NO_x emissions shall not exceed 0.043 lb/mmBtu on a 3 hour rolling average and 92.3 tons in any rolling twelve month period. <i>[Reference: Permit:APC-95/0570 (A 2)]</i></p> <p>B. For 21-H-2: NO_x emissions shall not Exceed 0.20 lb/mmBtu on a 24 hour rolling average. <i>[Reference: Permit:APC-81/0784 and 7 DE Admin. Code 1112 Section 3.2(a) dated 11/24/93]</i></p> <p>C. RESERVED</p>	<p>ii. Compliance Method:</p> <p>Compliance with the Emission Standards shall be determined by CEMS. The Owner/Operator shall operate and maintain the CEMS to assure maximum data capture and at no time shall the data capture fall below eighty-five percent (85%) of the Process Heaters daily operating hours and eighty-five percent (85%) of the operating days per month. <i>[Reference: Permit: APC-95/0570 (A2)]</i></p> <p>iii. Monitoring/Testing:</p> <p>The CEMS for NO_x and diluent must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix “B”. The QA/QC procedures for the NO_x and diluent CEMS shall be established in accordance with 40 CFR, Part 60, Appendix “F”. <i>[Reference: Permit:APC-95/0570 (A2)]</i></p> <p>iv. Recordkeeping:</p> <p>The following records shall be maintained in accordance with Condition 3(b): Owner/Operator shall maintain the following records: <i>[Reference:Permit:APC-95/0570 (A 2) Permit: AQM-003/0016-1 dated May 1, 2002]</i></p> <p>A. RESERVED</p> <p>B. RESERVED</p> <p>C. RESERVED</p> <p>D. The rolling 12-month total emissions for NO_x shall be calculated and recorded for each month</p> <p>E. CEMS data calibration and audit results.</p> <p>F. F-factor adjustments and the actual daily data capture.</p>	<p>v. Reporting:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification:</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>5. Carbon Monoxide (CO):</p> <p>i. Emission Standard:</p> <p>A. CO emissions from 21-H-701 shall not exceed 0.035 lb/mmBtu and 75.1 tons in any rolling 12 month period. [Reference: Permit: <u>APC-95/0570 (A2)</u> and [Reference :7 DE Admin. Code 1130 Sections 6.1.3.1.2 dated 12/11/00]</p>	<p>ii. Compliance Method:</p> <p>Compliance with the emission standard shall be based on the stack test based emission factor and the rolling twelve month fuel usage. [Reference: Permit: <u>APC-95/0570 (A2)</u>]</p> <p>iii. Monitoring/Testing: [Reference: Permit: <u>APC-95/0570 (A2)</u> and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</p> <p>A. RESERVED</p> <p>B. The Owner/Operator shall conduct stack Tests at 5 year intervals to determine the emission factor in terms of lb/mmBtu.</p> <p>iv. Recordkeeping:</p> <p>Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1. c. 1. iv.</p>	<p>v. Reporting:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p> <p>vi. Certification:</p> <p>That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</p>
<p>6. Volatile Organic Compounds (VOCs):</p> <p>i. Emission Standard:</p> <p>A. VOC emissions from 21-H-701 shall not exceed 0.003 lb/mmBtu and 6.4 tons in any rolling twelve month period. [Reference: Permit: <u>APC-95/0570 (A2)</u>]</p> <p>B. The leak detection and repair requirements to control fugitive VOC emissions from the Crude Unit shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR part 63, subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the</p>	<p>ii. Compliance Method:</p> <p>A. Compliance with the Emission Standard (A) shall be based on the stack test based emission factor and the rolling twelve month fuel usage. [Reference: Permit: <u>APC-95/0570 (A2)</u>]</p> <p>B. Compliance with the emission standard B shall be based on the standards in 40 CFR subpart GGG and 40 CFR Part 63 subpart CC, as applicable. Compliance with the standards in 40 CFR subpart GGG shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648.</p> <p>C. RESERVED</p>	<p>v. Reporting:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p> <p>vi. Certification:</p> <p>That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</p> <p>None in addition to those required by Condition 3(c)(3) of this permit.</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>Crude Unit shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service. <i>[Reference: Permit:APC-95/0570 (A2)]</i></p> <p>ii. Operational Limitation: RESERVED</p>	<p>iii. Monitoring/Testing: <i>[Reference: Permit:APC-95/0570 (A2) and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> A. RESERVED B. The Owner/Operator shall conduct a stack test every 5 years to determine the emission factor in terms of lb/mmBtu.</p> <p>iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1. c. 1. iv. and maintain the following records: <i>[Reference: Permit:APC-95/0570 (A2) and 7 DE Admin. Code 1130 Section 6.1.3.2 dated 12/11/00]</i> A. RESERVED B. RESERVEDC. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. D. RESERVED</p>	
<p>7. Visible Emissions: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than 20% opacity for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24 hour period. <i>[Reference 7 DE Admin. Code 1114, Section 2.1, dated 7/17/84].</i></p>	<p>ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing: A. The Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation. <u>1.</u> If visible emissions are observed, the Owner/Operator shall take corrective actions and/or conduct a visible observation in</p>	<p>v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>accordance with Paragraph B below.</p> <p>2. If no visible emissions are observed, no further action is required.</p> <p>B. If required under paragraph A above, the Owner/Operator shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual observations at fifteen-second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. <i>[Reference 7 DE Admin. Code 1120 Section 1.5.3 dated 12/7/88].</i></p> <p>iv. Recordkeeping <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2 dated 12/11/00]</i></p> <p>A. Observation records shall be maintained and made available to the Department upon request.</p>	
da. Emission Unit No. 22: Fluid Coking Unit (FCU): FCU, Wet Gas Scrubber (WGS), and Selective Non-Catalytic Reduction System (SNCR) (Emission point/s 22-2 or 22-3), FCU Start Up Heater 22-H-1 (Emission point/s 22-2 or 22-3), FCU Selas Steam Superheater 22-H-2 (Emission point 22-4), FCU Carbon Monoxide Boiler 22-H-3 (Emission point 22-2) and FCU Back Up Incinerator 22-H-4 (Emission point 22-3)		
<p>1. Conditions Applicable to Multiple Pollutants:</p> <p>i. Operational Limitations <i>[Reference Permit: APC-81/0829 (A7)]</i>:</p> <p>A. The FCU throughput shall not exceed a maximum rate of 57,199 barrels per day of total feed, exclusive of the FCU</p>	<p>ii. Compliance Method:</p> <p>A. Compliance with Operational Limitations A, B, C, D, E and F shall be based on monitoring/testing and recordkeeping requirements. <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p>	<p>v. Reporting:</p> <p>In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00 and 40 CFR 61.357 dated 1/7/93]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>recycle stream, as a 12 month rolling average, except as provided in this Condition. In the event that the Owner/Operator determines that the FCU throughput may exceed 57,199 barrels per day of fresh feed, as a 12 month rolling average, without any “modification” to the FCU, as such term is defined in Delaware Air Quality Regulation No. 1, then the Owner/Operator shall submit a notification to the Department in advance of achieving a throughput in excess of the level identified in this Condition. The notification shall include a demonstration that the proposed throughput value would be achieved without any modification to the FCU. If the Department approves such demonstration, the Owner/Operator may operate the FCU at the throughput value addressed in the notification made under this Condition.</p> <p>B. The Owner/Operator shall not burn any fuel gas in any fuel gas combustion device that contains hydrogen sulfide (H₂S) in excess of 0.10 gr/dscf (162 ppm).</p> <p>C. Except as provided in operational limitation E, the Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR system shall be operating properly at all times when the FCU is</p>	<p>B. RESERVED</p> <p>iii. Monitoring/Testing: . [Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</p> <p>A. The Owner/Operator shall continuously monitor and record the concentration (dry basis) of H₂S in RFG before it is combusted in any fuel burning device. The monitoring instrument shall be located downstream of all process steps that increase the concentration of H₂S in RFG prior to its being combusted in any fuel burning device. The H₂S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix “B” and comply with the Quality assurance requirements of 40 CFR 60, Appendix “F” The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix “A.” . [Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</p> <p>B. The Owner/Operator shall monitor the FCU throughput, the calculated coke burn rates and turndown rates as applicable. [Reference Permit: APC-81/0829 (A7)]</p> <p>iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): [Reference : 7 DE Admin. Code 1130 Section 6.1.3.2 dated 12/11/00]</p> <p>A. CEMS data, calibration and audit results.</p> <p>B. The type of fuel combusted in the FCU COB, 22-H-1, 22-H-2 and 22-H-4 and the daily COB fuel usage.</p> <p>C. The coke burn rate and FCU throughput, both on a rolling twelve month average basis.</p> <p>D. RESERVED.</p>	<p>and Permit: <u>Permit: APC-81/0829 (A7)</u></p> <p>A. Semiannual reports for the preceding six month period shall be submitted to the Department by January 31 and July 31 of each calendar year. The semiannual reports required by this section shall be increased in frequency to quarterly reports at the Department’s discretion and shall become effective upon request of the Department after reasonable notice to the Owner/Operator. An electronic copy of all required reports shall be sent to the Department’s compliance engineer assigned to the Refinery. The required reports shall contain the following information:</p> <ol style="list-style-type: none"> <u>1.</u> RESERVED <u>2.</u> RESERVED <u>3.</u> RESERVED <u>4.</u> A summary of all periods when the FCU WGS has been bypassed <u>5.</u> Hourly SO₂ emissions during periods when the FCU WGS was bypassed <u>6.</u> RESERVED <u>7.</u> Back up incinerator operating data required pursuant to recordkeeping condition F. <p>B. Quarterly NO_x, SO₂ and CO CEMS reports for the preceding quarter shall be submitted to the Department by January 31, April 30, July 31 and October 31 of each calendar year and shall include the following:</p> <ol style="list-style-type: none"> <u>1.</u> Excess emissions and the nature and cause of the excess emissions, if known. The summary shall consist of emission averages, in the units of the

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification																		
<p>operating.</p> <p>D. During planned start ups of the FCU, the FCU COB and WGS shall be operating prior to introducing feed into the reaction section of the FCU. In the event of a planned shut down of the FCU, the FCU COB or the WGS, the Owner/Operator shall continue to operate the FCU COB and WGS until there is no feed entering the reaction section of the FCU prior to commencing shut down of the FCU COB and/or the WGS.</p> <p>E. During operation of the backup incinerator and other periods of FCU CO Boiler, Belco prescrubber and WGS outages, the Owner/Operator, at a minimum, must initiate a reduction in the feed rate to the FCU and achieve the operational limits shown below by no later than 24 hours following the commencement of the outage of the FCU CO Boiler, Belco prescrubber and/or WGS.</p> <table border="1"> <thead> <tr> <th>FCU Feed Rate (KBD)</th><th>FCU Feed Wt. % S</th><th>SO₂ Emissions (lb/hour)</th></tr> </thead> <tbody> <tr> <td>31.5</td><td>6.0</td><td>4441.5</td></tr> <tr> <td>31.5</td><td>5.5</td><td>4071.4</td></tr> <tr> <td>31.5</td><td>5.0</td><td>3701.3</td></tr> <tr> <td>31.5</td><td>4.5</td><td>3331.1</td></tr> <tr> <td>31.5</td><td>4.0</td><td>2961.0</td></tr> </tbody> </table>	FCU Feed Rate (KBD)	FCU Feed Wt. % S	SO ₂ Emissions (lb/hour)	31.5	6.0	4441.5	31.5	5.5	4071.4	31.5	5.0	3701.3	31.5	4.5	3331.1	31.5	4.0	2961.0	<p>E. RESERVED.</p> <p>F. Backup incinerator operating hours, furnace temperature, percent O₂, and opacity.</p> <p>G. Bypass stack SO₂ emissions as calculated according to Condition 3, Table 1.da.1.H.</p> <p>H. The rolling 12 month total emissions for each pollutant shall be calculated and recorded each month in an easily accessible format for each pollutant listed in Condition 3, Table 1.da.</p>	<p>applicable standard, for each averaging period during which the applicable standard was exceeded.</p> <p><u>2.</u> The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments.</p> <p><u>3.</u> When no excess emissions have occurred and the CEMS have not been inoperative, repaired, or adjusted, such information shall be included in the report.</p> <p>vi. Certification:</p> <p>That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</p>
FCU Feed Rate (KBD)	FCU Feed Wt. % S	SO ₂ Emissions (lb/hour)																		
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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>F G. The Emission Standards in Condition 3, Table 1.da.2 through da.10 below shall not apply during periods of planned start up and planned shut downs of the FCU provided the planned start up and shut down event does not exceed 116 hours. The Emission Standards shall apply to each planned start up or shut down event after the expiration of the 116 hour period. Planned start ups shall be considered a maximum of 116 hours preceding oil back into the unit. Planned shut downs shall be considered a maximum of 116 hour from feed out of the FCU. In lieu of the Emission Standards, the following Emission Standards shall apply during planned start ups and shut downs of the FCU:</p> <ol style="list-style-type: none"> 1. VOC – 1.6 lb/hr 2. NO_x – 207 lbs/hr 3. H₂SO₄ – 58 lbs/hr 4. TSP – 47.1 lbs/hr 5. PM₁₀ – 133.3 lbs/hr 6. SO₂ – 95 lbs/hr 7. CO – 415 lbs/hr 8. Ammonia – 2 lbs/hr <p>H. This Permit does not authorize emissions exceeding the limits set forth in Condition 3, Table 1.da.2 through da.10 including emissions during periods of any unplanned shutdown of the FCU, or any unplanned shutdown or bypass of</p>		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>the FCU COB or the Belco prescrubber or WGS. Instead, in the event of any unplanned shutdown of the FCU or any unplanned shutdown or bypass of the FCU COB or Belco prescrubber or the WGS, the Owner/Operator shall bear the burden of demonstrating to the Department's satisfaction that the Owner/Operator's continued operation of the FCU should no subject the Owner/Operator to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under the State of Delaware "Regulations Governing the Control of Air Pollution." Such demonstration must at a minimum be supported by sufficient documentation and emissions data including all relevant emissions calculations, formulas, and any assumptions made thereof. The Department's evaluation shall consider, the specific circumstances of the event, including without limitation 1) the cause of, and the Owner/Operator's response to, the unplanned shutdown; 2) whether the Owner/Operator has taken all reasonable and prudent steps to abide by the emissions limit conditions; 3) whether the Owner/Operator has taken all reasonable and prudent steps to minimize the emissions associated with the plant; 4) the degree to which the Owner/Operator</p>		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>has reduced throughput to the FCU, and the basis for such degree of reduction; 5) the estimated emissions associated with a complete shutdown of the FCU; 6) whether Premcor has reviewed all prior similar causes of unplanned shutdowns and had taken all reasonable and prudent actions necessary to avoid future similar outages; and 7) the actual emissions during the period of the unplanned shutdown.</p> <p>1. Should the Owner/Operator operate the backup incinerator, the Owner/Operator shall abide by the following:</p> <p>a. Carbon Monoxide combustion shall be achieved at a minimum of 1300°F, and at a minimum retention time of 0.3 seconds; and</p> <p>b. Maximum particulate matter emissions of 0.19 grain per dry standard cubic foot (“dscf”) shall be achieved either by operating at a temperature of 1700°F, a minimum excess of 1.9% O₂ and a residence time of 2.0 seconds, or, at such other alternate operating conditions as have been demonstrated by testing to achieve equivalent emissions.</p>		
<p>2a. Particulate Matter:</p> <p>i. Emission Standard:</p> <p>A. For 22-H-1 and 22-H-2: The</p>	<p>iii. Compliance Method: <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. Compliance with Emission Standard (A) shall be</p>	<p>vi. Reporting Requirement:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit.</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBTU heat input, maximum 2-hour average. [Reference: DE Admin. Code 1104 Section 2.1 dated 2/1/81]</p> <p>B. For 22-H-3: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of those specified in Table 4 of Regulation 5 [Reference: DE Admin. Code 1105 Section 5.2 dated 2/1/81]</p> <p>C. For the FCU WGS:</p> <ol style="list-style-type: none"> 1. TSP emissions shall not exceed 47.1 lb/hour and 206.3 TPY, and 2. PM₁₀ emissions (including TSP and H₂SO₄) shall not exceed 133.1 lb/hour and 582.9 TPY. [Reference <u>Permit: APC-81/0829 (A7)</u>] <p>ii. Operational Limitation: With the exception of process off gas in units 22-H-3 and 22-H-4 only desulfurized RFG may be combusted in units 22-H-1, 22-H-2, 22-H-3 and 22-H-4. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2 dated 12/11/00]</p>	<p>based on the fuel type and quality.</p> <p>B. Compliance with the Emission Standard (B) shall be based on monitoring/testing and recordkeeping requirements.</p> <p>C. Compliance with Emission Standard (C) shall be based upon stack testing conducted in accordance with Condition 3, Table 1.da.2a.iv.A. D. Compliance with the Operational Limitation shall be demonstrated by record keeping.</p> <p>iv. Monitoring/Testing: [Reference: <u>Permit: APC-81/0829 (A7)</u> and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</p> <p>A. The Owner/Operator shall conduct annual performance testing of the WGS, unless the Department approves less frequent testing, as follows:</p> <ol style="list-style-type: none"> 1. RESERVED 2. For TSP, testing in accordance with Reference Method 5B in Appendix “A” of 40 CFR Part 60, or other testing methodology approved by the Department. 3. For PM₁₀ (including TSP and H₂SO₄), testing shall be in accordance with Methods 5B/202, or other testing methodology approved by the Department. <p>v. Recordkeeping: [Reference: 7 DE Admin. Code 1130 Section 6.1.3.2 dated 12/11/00] Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1. da. 1. iv.</p>	<p>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p> <p>vii. That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</p>
2b. Compliance Assurance Monitoring Plan for Particulate Matter		
<p>i. Emission Standard</p> <p>A. For 22-H-3: The Owner/Operator shall not</p>	<p>ii. Compliance Method</p> <p>Compliance shall be demonstrated by records of the</p>	<p>vi. Reporting</p> <p>A. Quality Improvement Plan (QIP)</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>cause or allow the emission of particulate matter in excess of those specified in Table 4 of Regulation 5 [Reference: <i>DE Admin. Code 1105 Section 5.2 dated 2/1/81</i>]</p> <p>B. For the FCU WGS:</p> <ol style="list-style-type: none"> 1. TSP emissions shall not exceed 47.1 lb/hour and 206.3 TPY, and 2. PM₁₀ emissions (including TSP and H₂SO₄) shall not exceed 133.1 lb/hour and 582.9 TPY. [Reference <i>Permit: APC-81/0829 (A7)</i>] <p>ii. Operational Limitations</p> <p>A. Indicators [Reference: 40 CFR Part 64.6(c)(1)(i) dated 10/22/97]</p> <ol style="list-style-type: none"> 1. Scrubber pressure drop shall be used as the primary indicator 2. Scrubber pump discharge shall be used as the secondary indicator <p>B. Indicator Ranges [Reference: 40 CFR Part 64.6(c)(1)(i) dated 10/22/97]</p> <ol style="list-style-type: none"> 1. For the primary indicator: Minimum delta-P of 6 inches of water column for no more than 3 minutes in any 1 hour or more than 15 minutes in any 24-hour period 2. For the secondary indicator: Minimum discharge pressure satisfying the less stringent of: 115 psig or 95 % of the average discharge pressure recorded during performance testing as specified in <i>Permit: APC-81/0829 (A7)</i> for no more than 3 minutes in any 1-hour or more than 15 minutes in any 24-hour 	<p>required monitoring. [Reference: 7 <i>DE Admin. Code 1130 Sections 6.1.3.2.3 dated 12/11/00 and 6.2.1 dated 12/11/00</i>]</p> <p>iii. Monitoring [Reference: 40 CFR Part 64.3 and 64.4 dated 10/22/97]</p> <p>A. Data Representativeness [Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]</p> <ol style="list-style-type: none"> 1. For the primary indicator: pressure drop indication shall be based on pressure indicators located prior to the Agglo-filtering modules and prior to the Cylolab Droplet Separators. 2. For the secondary indicator: pressure drop indication shall be based on a pressure indicator located after the quench/pre-scrubber recirculation pumps. <p>B. Verification of Operational Status for both indicators [Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]</p> <p>Annual stack testing conducted in accordance with Condition 3, Table 1da.2a.iv.A.</p> <p>C. QA/QC Practices for both indicators [Reference: 40 CFR Part 64.6(c)(1)(ii) dated 10/22/97]</p> <p>Annual stack testing conducted in accordance with Condition 3, Table 1da.2a.iv.A.</p> <p>D. Frequency for both indicators [Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]</p> <p>Continuous</p> <p>E. Data Collection Procedures for both indicators [Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]</p> <p>Data shall be collected and stored via the Refinery Process Historian</p> <p>F. Averaging Period for both indicators [Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]</p> <p>On a 1-minute basis</p>	<ol style="list-style-type: none"> 1. The Company shall submit a QIP in accordance with 40 CFR Part 64.8(b) if any stack tests reveal higher than permitted emission rates. [Reference: 40 CFR Part 64.7(e) dated 10/22/97] 2. The Company shall submit a QIP in accordance with 40 CFR Part 64.8(b) if excursions exceed 5% of the unit's operating time for a reporting period. [Reference: 40 CFR Part 64.8(a) dated 10/22/97] <p>B. The Company shall notify the Department at least 30 days prior to any reestablishment of excursion values. [Reference: 40 CFR Part 64.6(c)(2) dated 10/22/97]</p> <p>C. The report required by Condition 3(c)(2) of this permit shall also contain the following information: [Reference: 40 CFR Part 64.9(a)(2) dated 10/22/97]</p> <ol style="list-style-type: none"> 1. Summary information on the number, duration, and cause of excursions or exceedances; 2. The corrective actions taken after an excursion or exceedance; 3. Summary information on the number, duration, and cause of monitor downtime incidents; and 4. If triggered, a description of the actions taken to implement the QIP. <p>vii. <u>Certification</u></p> <p>None in addition to that required by Condition 3(c)(3) of this permit. [Reference: 7 <i>DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.2 dated 12/11/2000</i>]</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>period.</p> <p>C. Excursions <i>[Reference: 40 CFR Part 64.6(c)(2) dated 10/22/97]</i></p> <ol style="list-style-type: none"> 1. An excursion shall be defined as any deviation from the ranges specified in the Indicator Ranges (B)(1) or (B)(2). 2. An excursion shall trigger an inspection, corrective action, and a reporting requirement. <i>[Reference: 40 CFR Part 64.7(d) dated 10/22/97]</i> <p>D. Monitoring/Measurement Approach <i>[Reference: 40 CFR Part 64.6(c)(1)(ii) dated 10/22/97]</i></p> <ol style="list-style-type: none"> 1. Pressure drop for the primary indicator shall be based on pressure transducer measurements obtained upstream of the Agglo-filtering modules and upstream of the Cylolab Droplet Separators. 2. Pressure drop for the secondary indicator shall be based on pressure transducer measurements obtained at the quench/pre-scrubber recirculation pumps discharge. <p>E. At all times, the Company shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. <i>[Reference: 40 CFR Part 64.7(b) dated 10/22/97]</i></p> <p>F. At all times, the Company shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control</p>	<p>iv. Testing <i>[Reference: 40 CFR Part 64.6 dated 10/22/97]</i></p> <p>None in addition to those required by Condition 3, Table 1 da.2a.iv.A.</p> <p>v. Record Keeping <i>[Reference: 40 CFR Part 64.9(b) dated 10/22/97]</i></p> <p>A. The Company shall maintain records of the following:</p> <ol style="list-style-type: none"> 1. Monitoring data; 2. Monitor performance data; 3. Corrective actions taken; 4. Any written quality improvement plan (QIP) required pursuant to 64.8; 5. Any activities undertaken to implement a QIP; and 6. All supporting information used to demonstrate compliance. 	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are cause in part by poor maintenance or careless <i>operation are not malfunctions</i>. [Reference: 40 CFR Part 64.7(c) dated 10/22/97]</p>		
<p>3. Sulfur dioxide (SO₂):</p> <p>i. Emission Standards:</p> <p>A. SO₂ emissions shall not exceed 25 ppmvd @ 0% O₂ on a rolling 365 day average, 50 ppmvd @ 0% O₂ on a rolling 7 day average, and 174 TPY. [Reference Permit: APC-81/0829 (A7)]</p>	<p>ii. Compliance Method: [Reference : 7 DE Admin. Code 1130 Sections 6.1.3.1.2 dated 12/11/00]</p> <p>A. Compliance with Emission Standard (A) shall be based on CEMS.</p> <p>iii. Monitoring/Testing: [Reference Permit: APC-81/0829 (A7) and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</p> <p>A. RESERVED</p> <p>B. The CEMS for SO₂ and O₂ must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix “B”. The QA/QC procedures for the SO₂ and O₂ CEMS shall be established in accordance with the procedures in 40 CFR 60, Appendix “F”.</p> <p>iv. Recordkeeping:</p> <p>Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1. da. 1. iv.</p>	<p>v. Reporting Requirement:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “General Conditions” in Condition 3, Table 1.da.1.v [Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p> <p>vi. Certification Requirement:</p> <p>That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>4. Nitrogen Oxides (NO_x):</p> <p>i. Emission Standard:</p> <p>A. For Unit 22-H-2: NO_x emissions shall not exceed those achieved through an annual tune up performed by qualified personnel. <i>[Reference: 7 DE Admin. Code 1112, Section 3.3(b) dated 11/24/93]</i></p> <p>B. RESERVED</p> <p>C. NO_x emissions from the FCU WGS shall not exceed 152 ppmvd @ 0 % oxygen on a 24 hour rolling average basis and 689.8 TPY. The Owner/Operator shall propose annual concentration based (365 day average) and mass emission (TPY) limits by July 27, 2008 based on approximately</p>	<p>ii. Compliance Method:</p> <p>A. Compliance with Emission Standard (A). shall be by conducting an annual tune up of each unit by qualified personnel. <i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>B. RESERVED</p> <p>C. Compliance with the Emission Standard (C) shall be based on CEMS.</p> <p>iii. Monitoring/Testing:</p> <p>A. For Unit 22-H-2: None in addition to the annual tune up required in Compliance Method A.</p> <p>B. The CEMS for NO_x and O₂ must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix “B”. the QA/QC procedures for the NO_x and O₂</p>	<p>v. Reporting:</p> <p>A. That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “General Conditions” in Condition 3, Table 1.da.1.v <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>B. RESERVED</p> <p>vi. Certification:</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>6 months of rolling 365-day data spanning the period November 27, 2007 through May 27, 2008 for AQM’s review, approval and incorporation into this permit. <i>[Reference Permit: APC-81/0829 (A7)]</i></p>	<p>CEMS shall be established in accordance with the procedures in Appendix “F” of 40 CFR, Part 60. <i>[Reference Permit: APC-81/0829 (A7)]</i>.</p> <p>iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): A. A log of all tune ups performed and documentation of qualifications of personnel responsible for conducting the tune up. B. RESERVED C. RESERVED D. RESERVED</p>	
<p>5. Carbon Monoxide (CO): i. Emission Standard <i>[Reference Permit: APC-81/0829 (A7)]</i>: A. CO emissions from the FCU WGS shall not exceed 500 ppm dry @ 0% O₂ on an hourly average, 200 ppm dry @ 0% O₂ on a rolling 365 day average, and 608 TPY. B. The Owner/Operator shall not cause or allow the emission of carbon monoxide from the FCU unless it is burned at no less than 1300° F for at least 0.3 seconds in the FCU COB.</p>	<p>ii. Compliance Method <i>[Reference Permit: APC-81/0829 (A7)]</i>: A. Compliance with Emission Standard (A) shall be based on CEMS. B. Compliance with Emission Standard (B) is defined as maintaining a firebox temperature of no less than 1300° F as measured on a minute average basis.</p> <p>iii. Monitoring/Testing: A. The Owner/Operator shall monitor the firebox temperature of the FCU COB continuously. <i>[Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> B. The QA/QC procedures for the CO CEMS and shall be in accordance with the procedures in Appendix “F” of 40 CFR Part 60.</p> <p>iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): A. COB firebox temperature.</p>	<p>v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “General Conditions” in Condition 3, Table 1.da.1.v <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>B. The rolling 12 month total emissions for CO shall be calculated and recorded each month in an easily accessible format.</p> <p>C. RESERVED</p>	
<p>6. Volatile Organic Compounds (VOCs):</p> <p>i. Emission Standard <i>[Reference Permit: APC-81/0829 (A7)]</i>:</p> <p>A. VOC emissions from the FCU WGS shall not exceed 0.14 lb/mmDSCF of stack gas and 7.3 TPY.</p> <p>B. The leak detection and repair requirements to control fugitive VOC emissions from the FCU shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR 60, Subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the FCU shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service.</p> <p>ii. RESERVED</p>	<p>ii. Compliance Method <i>[Reference Permit: APC-81/0829 (A7)]</i>:</p> <p>A. Compliance with Emission Standard (A) shall be based on stack testing to be conducted in accordance with Condition 3, Table 1.da.6.iii.A.</p> <p>B. Compliance with emission standard B for new components in light liquid and gaseous service shall be based on compliance with the standards in 40 CFR 63.162 through 63.177. Compliance with the standards in 40 CFR subpart GGG for existing components in light liquid gaseous service shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648.</p> <p>C. RESERVED</p> <p>D. RESERVED</p> <p>iii. Monitoring/Testing:</p> <p>A. The Owner/Operator shall conduct performance testing every three years, unless the Department approves less frequent testing. Each performance test conducted shall be performed in accordance with Reference Method 25A in Appendix “A” of 40 CFR Part 60, and shall determine and report results as total hydrocarbons. <i>[Reference Permit: APC-81/0829 (A7)]</i></p> <p>iv. Recordkeeping:</p> <p>Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1. da. 1. iv.</p> <p>A. RESERVED</p>	<p>v. Reporting Requirement:</p> <p>A. That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “General Conditions” in Condition 3, Table 1.da.1.v <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>B. Leak detection and repair reports shall be submitted as required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. <i>[Reference Permit: APC-81/0829 (A7)]</i></p> <p>vi. Certification Requirement:</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	B. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. <i>[Reference Permit: APC-81/0829 (A7)]</i>	
7. Sulfuric Acid (H ₂ SO ₄): i. Emission Standard: <i>[Reference Permit: APC-81/0829 (A7)]</i> A. H ₂ SO ₄ emissions from the FCU shall meet one of the following standards: <u>1.</u> H ₂ SO ₄ emissions shall be reduced by at least 40% across the wet gas scrubber system; or <u>2.</u> The outlet concentration of H ₂ SO ₄ /SO ₃ from the stack shall be no greater than 10 ppmvd B. H ₂ SO ₄ emissions from the FCU WGS shall not exceed 58 lb/hr and 252.3 TPY.	ii. Compliance Method: <i>[Reference Permit: APC-81/0829 (A7)]</i> Compliance with the Emission Standard (A) shall be based on stack testing conducted in accordance with Condition 3, Table 1.da.7.iii. iii. Monitoring/Testing: <i>[Reference Permit: APC-81/0829 (A7)]</i> The Owner/Operator shall conduct annual performance tests, unless the Department approves less frequent testing, in accordance with Reference Method 8 in Appendix “A” of 40 CFR Part 60, or other testing methodology approved by the Department. iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1. da. 1. iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “General Conditions” in Condition 3, Table 1.da.1.v <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>8. Ammonia (NH₃): <i>[Reference Permit: APC-81/0829 (A7)]</i></p> <p>i. Emission Standard: Ammonia emissions from the FCU shall not exceed 2 lb/hour and 8.8 TPY</p>	<p>ii. Compliance Method: <i>[Reference Permit: APC-81/0829 (A7)]</i> Compliance with the Emission Standard shall be based on an initial performance test.</p> <p>iii. Monitoring/Testing: <i>[Reference Permit: APC-81/0829 (A7)]</i> The initial performance test shall be conducted in accordance with EPA Conditional Test Method 27.</p> <p>iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.da.1. iv.</p>	<p>v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “General Conditions” in Condition 3, Table 1.da.1.v <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>
<p>9. Lead (Pb): <i>[Reference Permit: APC-81/0829 (A7)]</i></p> <p>i. Emission Standard: Pb emissions from the FCU shall not exceed 4.37 E-04 pounds per thousand pounds of coke burned and 9.0 E-02 TPY;</p>	<p>ii. Compliance Method: <i>[Reference Permit: APC-81/0829 (A7)]</i> Compliance with the Emission Standard shall be based on the stack test based emission factor in terms of lb/Mlb coke burn rate.</p> <p>iii. Monitoring/Testing: <i>[Reference Permit: APC-81/0829 (A7)]</i> The Owner/Operator shall conduct performance testing every three years, unless the Department approves less frequent testing</p> <p>iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.da.1. iv.</p>	<p>v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “General Conditions” in Condition 3, Table 1.da.1.v <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>
<p>10. Hazardous Air Pollutants (HAPs): <i>[Reference Permit: APC-81/0829 (A7)]</i></p> <p>i. Emission Standard: Nickel (Ni) emissions shall not exceed</p>	<p>ii. Compliance Method: <i>[Reference Permit: APC-81/0829 (A7)]</i> Compliance with the Emission Standard shall be based on the stack test based emission factor in terms of lb/Mlb coke burn rate</p>	<p>v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “General Conditions” in Condition</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
0.001 pounds per 1,000 pounds of coke burned.	iii. Monitoring/Testing: <i>[Reference Permit: APC-81/0829 (A6)]</i> The Owner/Operator shall conduct performance testing every three years, unless the Department approves less frequent testing iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.da.1. iv.	3, Table 1.da.1.v <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>
11. Visible Emissions: i. Emission Standards: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. <i>[Reference 7 DE Admin. Code 1114, Section 2.1, dated 7/17/84 and Permit: APC-81/0829 (A7)].</i>	ii. Compliance Method: A. For units 22-H-2 and 22-H-4: Comply with “Visible Emissions Standard” in Condition 3, Table 1.ob.1. <i>[Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> B. For units 22-H-1 and 22-H-3 compliance shall be demonstrated by the AMP. iii. Monitoring/Testing: A. RESERVED B. For Units 22-H-2 and, when operating, 22-H-4, the Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation. <u>1.</u> If visible emissions are observed, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with Paragraph C below. <u>2.</u> If no visible emissions are observed, no further action is required. C. For periods when the CO Boiler (22-H-3) is firing refinery fuel gas only, the Owner/Operator shall conduct daily qualitative stack observations	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “General Conditions” in Condition 3, Table 1.da.1.v <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>to determine the presence of any visible emissions when the unit is in operation.</p> <ol style="list-style-type: none"> 1. If visible emissions are observed, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with Paragraph E. 2. If no visible emissions are observed, no further action is required. <p>D. AMP: The Owner/Operator shall continuously monitor the pressure drop across the Agglo-filtering modules and Cyclolab Droplet Separators and the quench/pre-scrubber recirculation pump discharge pressure. The determination that the opacity from the FCU WGS stack, when it is operating, shall not be greater than 20 % for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24 hour period shall be based upon the following parametric monitoring:</p> <ol style="list-style-type: none"> 1. The minimum delta-P across the Agglo-Filtering modules and Cyclolab Droplet Separators shall be 6 inches WC, evaluated on a one minute average basis; and 2. A minimum discharge pressure, evaluated on a one minute average basis, from the quench/pre-scrubber recirculation pumps satisfying the less stringent of: <ol style="list-style-type: none"> a. 115 psig, or b. The discharge pressure equivalent to 95% of the average discharge pressure recorded during performance testing performed in accordance with the methods identified in Condition (da)(2)(iv)(3), provided that such 	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>performance testing also includes a demonstration of compliance with the visual emissions standard identified in Condition 3, Table 1. da.11.i using EPA Method 9.</p> <p>3. Notwithstanding Condition 3, Table 1.Da.11.iii.D.2, if the discharge pressure from the quench/pre-scrubber falls below the minimum discharge pressure established under Condition 3, Table 1.da.11.iii.D.2 for greater than 3 minutes in any hour or more than 15 minutes in any 24 hour period, the Owner/Operator may perform a visual emission test in accordance with EPA Reference Method 9 to establish that visible emissions do not exceed the opacity standard specified in Condition 3, Table 1.da.11.i at the reduced discharge pressure. In such case, the new minimum discharge pressure from the quench/pre-scrubber recirculation pumps shall be the average discharge pressure recorded during the Method 9 test, and shall be used in conjunction with Condition 3, Table 1.da.11.iii.D.1 to evaluate compliance with Condition 3, Table 1.da.11.i.</p> <p>E. If required under paragraph C above, the Owner/Operator shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual observations at fifteen-second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. <i>[Reference 7 DE Admin. Code 1120, Section 1.5(c) dated 12/7/88].</i></p> <p>iv. Recordkeeping: <i>[Reference 7 DE Admin. Code 1130 Section 6.1.3.2 dated 12/11/00]</i> The following records shall be maintained in accordance with Condition 3(b): A. Detailed daily records of observations of visible emissions or the absence of visible emissions, or other records identified in an approved alternate plan.</p>	
db. Emission Unit No. 22: Fluid Coke Handling and Storage Facility: Emission Point 22-1		
<p>1. Particulate Matter (PM)</p> <p>i. Emission Standard:</p> <p>A. PM emissions shall not exceed 0.2 grain/dscf from the coker silo baghouse exhaust. <i>[Reference Reg. No. 5, Section 2.1, dated 2/1/81 and Permit: APC-82/1209 (A 3)].</i></p> <p>B. Coke conveying, grading, wetting, stackout, dozing, truck/railcar loading and reclaim operations shall not result in particulate emissions in excess of 46 TPY of TSP and 32 TPY of PM₁₀ where the term “year” is defined as any twelve consecutive months.</p>	<p>iii. Compliance Method:</p> <p>A. Compliance with Emission Standard (A) and Operational Limitations (A) and (B) shall be based on monitoring the pressure drop across the baghouse continuously. Proper operation of the Micro-Pulsaire dust collector shall be based on a pressure drop no greater than 12 inches water column and no observable opacity exceedances of the emission standard in Condition 3, Table 1.db.2.i of this permit. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit: APC-82/1209 (A 3)].</i></p> <p>B. Compliance with Emission Standard (B) shall be based on calculations using the same</p>	<p>vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and quarterly reports of the ambient air quality data obtained from the high volume samplers. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00 and Permit:APC-82/1209 (A 3]</i></p> <p>vii. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p><i>[Reference :Permit: APC-82/1209 (A 3)].</i></p> <p>ii. Operational Limitation: <i>[Reference :Permit: APC-82/1209 (A 3)].</i></p> <p>A. No coke shall be pneumatically conveyed into the coke storage silo, unless the Micro-Pulsaire dust collector is working properly.</p> <p>B. Proper operation and maintenance of a gauge which continuously indicates the pressure drop across the baghouse shall be considered a necessary part of the proper operation of the baghouse.</p> <p>C. The moisture content of the coke transported by truck shall be greater than 8% at all times and greater than 10% on an annual average basis.</p> <p>D. Fugitive emissions shall not be emitted in such quantities as to cause or create a condition of air pollution from material handling operations, the stockpiling of materials or vehicular traffic entering or leaving the facility.</p> <p>E. Oil wetting of the coke shall be employed as a dust control measure before it is loaded onto the conveyor system.</p> <p>F. All conveyors and drop points shall be fully enclosed at all times when coke is being conveyed or dropped.</p> <p>G. The fluxing agent in the gasifiers shall consist solely of uncontaminated natural soil and uncontaminated additives such as limestone.</p>	<p>methodology and equations used in the permit application. In the future this methodology may be modified, subject to the Department's approval, to reflect further application of control methods. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit: APC-82/1209 (A 3)]</i></p> <p>C. Compliance with Operational Limitation (C) shall be based on the sampling and monitoring requirements. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit: APC-82/1209 (A 3)]</i></p> <p>D. Compliance with Operational Limitations (D), (E), (F) and (G) shall be based on information available to the Department concerning the Owner/Operator's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>iv. Sampling/Monitoring/Testing: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit: APC-82/1209 (A 3)]</i></p> <p>A. Daily samples of coke shall be taken from the storage pile, stackout and reclaim area and from the coke being loaded into trucks and railcars and analyzed for moisture content.</p> <p>B. The Owner/Operator shall monitor the entire coke storage and handling area with high volume samplers for the life of the system.</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>Supplemental approval from the Department shall be required before the use of any waste material as a fluxing agent or additive.</p>	<p>v. Recordkeeping: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit: APC-82/1209 (A 3)].</i> The following records shall be maintained in accordance with Condition 3(b):</p> <ul style="list-style-type: none"> A. The rolling twelve month emissions of TSP and PM₁₀ B. The rolling twelve month average coke production transferred through the coke handling system. C. The rolling twelve month average amounts of coke transferred to the coke storage area and coke reclaimed. D. The duration of reclaim operations during each rolling twelve month period. F. A maintenance record for the Micro-Pulsaire dust collector and associated monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of any outages. G. A record of the continuous pressure drop readings across the baghouse expressed in inches of H₂O. It is acceptable to store this data electronically provided it is in a format acceptable to the Department. H. Records of the ambient air quality data obtained from the high volume samplers for TSP and PM₁₀ for the life of the system. 	
<p>2. Visible Emissions i. Emission Standards: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from the FCU baghouse, the shade or appearance of which is greater than twenty (20)</p>	<p>ii. Compliance Method: Compliance shall be demonstrated by monitoring and testing requirements, and record keeping. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing:</p>	<p>v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) months in any twenty-four (24) hour period. <i>[Reference 7 DE Admin. Code 1114, Section 2.1 dated 7/17/84 and Permit: APC-82/1209 (A 3)]</i></p>	<p>A. The Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation.</p> <ol style="list-style-type: none"> <u>1</u> If visible emissions are observed, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (B) below. <u>2</u> If no visible emissions are observed, no further action is required. <p>B. If required under paragraph A above, the Owner/Operator shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual observations at fifteen-second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. <i>[Reference 7 DE Admin. Code 1120, Section 1.5.3 dated 12/7/88 and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00].</i></p> <p>iv. Record keeping: <i>[Reference 7 DE Admin. Code 1130 Section 6.1.3.2 dated 12/11/00]</i> The Owner/Operator shall maintain the following records in accordance with Condition 3(b):</p> <ol style="list-style-type: none"> A. Observation records shall be maintained and made available to the Department upon request. 	<p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
e. Emission Unit No. 23: Fluid Catalytic Cracking Unit (FCCU); FCCU Reactor, Catalyst Regenerator, Start up Heaters 23-H-1 A and B, Carbon Monoxide Boiler, 23-H-3, and Wet Gas Scrubber System (WGS) (emission point 23-1);		
<p>i. General Conditions:</p> <p>i. Operational Limitation: <i>[Reference Permit APC-82/0981 (A7)]</i></p> <p>A. Except as allowed by operational limitation G, the Owner/Operator shall not burn any fuel gas in any fuel gas combustion device that contains hydrogen sulfide (H₂S) in excess of 0.10 gr/dscf (162 ppm).</p> <p>B. Before the WGS + system is operational, except as provided in Operating Limitation J, the COB, Belco pre-scrubber, the amine-based Cansolv regenerative WGS, and the caustic polishing scrubber shall be operating properly at all times when the FCCU is operating. After the commencement of operation of the NO_x control system, except as provided in Operational Limitation J, the NO_x control system shall be operating properly at all times when the FCCU is operating.</p> <p>C. Before the WGS + system is operational, during planned start ups of the FCCU, the FCCU COB and WGS shall be operating prior to introducing feed into the riser reactor of the FCCU. In the event of a planned shut down of the FCCU, the FCCU COB or the WGS, the</p>	<p>ii. Compliance Method: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. Compliance with operational limitations A and B shall be based on monitoring/testing and recordkeeping requirements.</p> <p>B. Compliance with operational limitations C, D and E shall be based on information available to the Department concerning the Owner/Operator's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.</p> <p>C. Compliance with the operational limitations F and G shall be demonstrated by monitoring/testing and record keeping requirements.</p> <p>iii. Monitoring/Testing:</p> <p>A. The Owner/Operator shall continuously monitor and record the concentration (dry basis) of H₂S in RFG before it is combusted in any fuel burning device. The monitoring instrument shall be located downstream of all process steps that increase the concentration of H₂S in RFG prior to its being combusted in any fuel burning device. The H₂S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the</p>	<p>v. Reporting:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00 [Reference: Regulation 30, Section 6(a)(3)(iii) dated 12/11/00 and Permit APC-82/0981 (A7)]</i></p> <p>A. Semiannual reports for the preceding six month period shall be submitted to the Department by January 31 and July 31 of each calendar year. The semiannual reports required by this section shall be increased in frequency to quarterly reports at the Department's discretion and shall become effective upon request of the Department after reasonable notice to the Owner/Operator. An electronic copy of all required reports shall be sent to the Department's compliance engineer assigned to the Refinery. The required reports shall contain the following information:</p> <ol style="list-style-type: none"> <u>1.</u> RESERVED <u>2.</u> RESERVED <u>3.</u> A summary of all periods when the FCCU WGS has been bypassed. <u>4.</u> Actual hourly SO₂ emissions during periods when the FCCU WGS was bypassed. <u>5.</u> RESERVED <p>B. Quarterly CEMS reports for the preceding quarter shall be submitted to the Department for the CEMS required by this permit by</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>Owner/Operator shall continue to operate the FCCU COB and WGS until there is no feed entering the riser reactor of the FCCU prior to commencing shut down of the FCCU COB and the WGS. After commencement of operation of the NO_x control system, during planned startups of the FCCU, the NO_x control system shall be operating prior to introducing feed into the riser reactor of the FCCU. In the event of a planned shut down of the FCCU, the WGS or the NO_x control system, the Owner/Operator shall continue to operate the NO_x control system until there is no feed entering the riser reactor of the FCCU prior to commencing shut down of the NO_x control system.</p> <p>D. Prior to May 1, 2009, in the event that the FCCU COB and/or the NO_x control system is shut down, operation of the FCCU shall be in accordance with Attachment B of this permit. On and after May 1, 2009, during periods of outages of any component of the NO_x control system, the Owner/Operator, at a minimum, must initiate a reduction in the feed rate to the FCCU by no later than 24 hours following the commencement of the outage. The Owner/Operator</p>	<p>Quality assurance requirements of 40 CFR 60, Appendix “F” The monitoring instrument shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix “B.” The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix “A.”<i>[Reference : 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>B. RESERVED</p> <p>iv. Recordkeeping: <i>[Reference Permit APC-82/0981 (A7)]</i> The following records shall be maintained in accordance with Condition 3(b)</p> <p>A. CEMS data, calibration and audit results. B. The type of fuel combusted in the FCCU COB and 23-H-1 A and B and the daily FCCU COB fuel usage. C. RESERVED D. RESERVED E. Bypass stack SO₂ emissions and FCCU turndown/throughput rates as required by Operational Limitation (D). F. RESERVED G. FCCU COB firebox temperature H. Date and duration on which any portion of the FCCU WGS system was bypassed. I. Bypass stack NO_x emissions calculated based on engineering estimates. J. The rolling 12 month total emissions for each pollutant shall be calculated and recorded each month in an easily accessible format for each pollutant listed in Condition 3, Table 1.e.</p>	<p>January 31, April 30, July 31 and October 31 of each calendar year and shall include the following:</p> <ol style="list-style-type: none"> 1. Excess emissions and the nature and cause of the excess emissions, if known. The summary shall consist of emission averages, in the units of the applicable standard, for each averaging period during with the applicable standard was exceeded. 2. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments. 3. When no excess emissions have occurred and the CEMS have not been inoperative, repaired, or adjusted, such information shall be included in the report. <p>C. RESERVED</p> <p>D. Quarterly SO₂ and CO CEMS reports for the preceding quarter shall be submitted to the Department by January 30, April 30, July 30 and October 30 of each calendar year and shall include the information required by 40 CFR 60.7 (c) and (d).</p> <p>vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>will reduce FCCU feed rate by 5,000 barrels per hour until the feed rate to the FCCU is 55,000 bpd.</p> <p>E. RESERVED</p> <p>F. With the exception of Operational Limitation (G), 23-H-1A/B and the FCCU COB (23-H-3) shall only combust desulfurized RFG. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2 dated 12/11/00]</i></p> <p>G. 23-H-3 may combust Alky Merox spent air from 24-C-10, Poly Merox spent air from 26-C-5 and process off gas from the regenerator. <i>[Reference: 40 C.F.R. Part 63, Subpart CC]</i></p> <p>H. The Emission Standards in Condition 3, Table 1.e.2 through e.9 below shall not apply during periods of planned shut down and planned start up of the FCCU for a period of time not to exceed 72 hours for each planned shut down and each planned start up event. The planned shut down period shall begin when there is no feed entering the FCCU reaction section. The planned start up period shall begin when dry-out of the FCCU is commenced. The Emission Standards in Condition 3, Table 1.e.2 through e.9 shall apply to each planned start up event after the expiration of the 72 hour period. In lieu of the Emission Standards, the following emission limitations shall apply during planned</p>		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>start ups and shut downs of the FCCU:</p> <ol style="list-style-type: none"> 1. VOC – 9.5 lb/hr 2. NO_x – 360 lbs/hr 3. PM – 500 lbs/hr 4. SO₂ – 165 lbs/hr 5. CO – 860 lbs/hr <p>I. In the event of an unplanned shutdown of the CO Boiler, the Owner/Operator shall as expeditiously as practicable but no later than 24 hours initiate promoted burn in the FCCU regenerator to control CO emissions in accordance with Condition 3, Table 1.e.5.i. Additionally the Owner/Operator shall expeditiously as practicable but no later than 24 hours utilize the flue gas bypass system to route the FCCU emissions stream through the NO_x control system.</p> <p>J. Except as provided in Operational Limitation D, this permit does not authorize emissions exceeding the limits set forth in Condition 3, Table 1.e.2 through e.9 including emissions during periods of any unplanned shutdown of the FCCU, or any unplanned shutdown or bypass of the FCCU COB, or the Belco prescrubber or WGS or the NO_x control system. Instead, in the event of any unplanned</p>		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>shutdown of the FCCU or any unplanned shutdown or bypass of the FCCU COB or Belco prescrubber or the WGS or NO_x control system, the Owner/Operator shall bear the burden of demonstrating to the Department's satisfaction that the Owner/Operator's continued operation of the FCCU should not subject the Owner/Operator to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under the State of Delaware "Regulations Governing the Control of Air Pollution." Such demonstration must at a minimum be supported by sufficient documentation and emissions data including all relevant emissions calculations, formulas, and any assumptions made thereof. The Department's evaluation shall consider, the specific circumstances of the event, including without limitation 1) the cause of, and the Owner/Operator's response to, the unplanned shutdown; 2) whether the Owner/Operator has taken all reasonable and prudent steps to abide by the emissions limit conditions; 3) whether the Owner/Operator has taken all reasonable and prudent steps to minimize the emissions associated</p>		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>with the plant; 4) the degree to which the Owner/Operator has reduced throughput to the FCCU, and the basis for such degree of reduction; 5) the estimated emissions associated with a complete shutdown of the FCCU; 6) whether Premcor had reviewed all prior similar causes of unplanned shutdowns and had taken all reasonable and prudent actions necessary to avoid future similar outages; and 7) the actual emissions during the period of the unplanned shutdown.</p>		
<p>2a. Particulate Matter:</p> <p>i. Emission Standard:</p> <p>A. For the FCCU start up heaters (23-H-1A and B) from combustion of fuel gas: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBTU heat input, maximum 2-hour average. <i>[Reference: 7 DE Admin. Code 1104, Section 2.1 dated 2/1/81]</i></p> <p>B. TSP emissions from the WGS + system shall not exceed 1lb/1000 lb of coke burned and 203 TPY. <i>[Reference Permit APC-82/0981 (A7)]</i></p>	<p>iii. Compliance Method: <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. Compliance with the Emission Standard (A) is based on the fuel type and quality.</p> <p>B. Compliance with Emission Standard (B) is based on stack testing conducted in accordance with Condition 3, table 1.e.2a.iv.</p> <p>iv. Monitoring/Testing: <i>[Reference: Permit: APC-81/0829 (A 7) and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>The Owner/Operator shall conduct performance testing as follows annually, unless the Department approves less frequent testing:</p> <p>A. RESERVED</p> <p>B. TSP: in accordance with Reference Method 5B in Appendix “A” of 40 CFR Part 60, or other testing methodology approved by the Department.</p> <p>C. PM10: in accordance with Methods 5B/202, or</p>	<p>v. Reporting Requirement:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.e.1.iv. “General Conditions” in Condition 3, Table 1.e.1.v <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement:</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>other testing methodology approved by the Department.</p> <p>v. Record Keeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.e.1.iv.</p>	
2b. Compliance Assurance Monitoring Plan for Particulate Matter		
<p>i. Emission Standard</p> <p>A. For 23-H-3: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of those specified in Table 4 of Regulation 5 [Reference: <i>DE Admin. Code 1105 Section 5.2 dated 2/1/81</i>]</p> <p>B. For the FCCU WGS:</p> <p>1. TSP emissions shall not exceed 1 lb/1000 lb of coke burned and 203 TPY, and [Reference Permit: APC-82/0981 (A7)]</p> <p>ii. Operational Limitations</p> <p>A. Indicators [Reference: 40 CFR Part 64.6(c)(1)(i) dated 10/22/97]</p> <p>1. Scrubber pressure drop shall be used as the primary indicator</p> <p>2. Scrubber pump discharge shall be used as the secondary indicator</p> <p>B. Indicator Ranges [Reference: 40 CFR Part 64.6(c)(1)(i) dated 10/22/97]</p> <p>1. For the primary indicator: Minimum delta-P of 6 inches of water column for no more than 3 minutes in any 1 hour or more than 15 minutes in any 24-hour period</p> <p>2. For the secondary indicator: Minimum discharge pressure satisfying the less</p>	<p>iii. Compliance Method</p> <p>Compliance shall be demonstrated by records of the required monitoring. [Reference: 7 <i>DE Admin. Code 1130 Sections 6.1.3.2.3 dated 12/11/00 and 6.2.1 dated 12/11/00</i>]</p> <p>iv. Monitoring [Reference: 40 CFR Part 64.3 and 64.4 dated 10/22/97]</p> <p>A. Data Representativeness [Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]</p> <p>1. For the primary indicator: pressure drop indication shall be based on pressure indicators located prior to the Agglo-filtering modules and prior to the Cylolab Droplet Separators.</p> <p>2. For the secondary indicator: pressure drop indication shall be based on a pressure indicator located after the quench/pre-scrubber recirculation pumps.</p> <p>B. Verification of Operational Status for both indicators [Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]</p> <p>Annual stack testing conducted in accordance with Condition 3, Table 1da.2a.iv.A.</p> <p>C. QA/QC Practices for both indicators [Reference: 40 CFR Part 64.6(c)(1)(ii) dated 10/22/97]</p> <p>Annual stack testing conducted in accordance with Condition 3, Table 1da.2a.iv.A.</p> <p>D. Frequency for both indicators [Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]</p>	<p>v. Reporting</p> <p>A. Quality Improvement Plan (QIP)</p> <p>1. The Company shall submit a QIP in accordance with 40 CFR Part 64.8(b) if any stack tests reveal higher than permitted emission rates. [Reference: 40 CFR Part 64.7(e) dated 10/22/97]</p> <p>2. The Company shall submit a QIP in accordance with 40 CFR Part 64.8(b) if excursions exceed 5% of the unit’s operating time for a reporting period. [Reference: 40 CFR Part 64.8(a) dated 10/22/97]</p> <p>B. The Company shall notify the Department at least 30 days prior to any reestablishment of excursion values. [Reference: 40 CFR Part 64.6(c)(2) dated 10/22/97]</p> <p>C. The report required by Condition 3(c)(2) of this permit shall also contain the following information: [Reference: 40 CFR Part 64.9(a)(2) dated 10/22/97]</p> <p>1. Summary information on the number, duration, and cause of excursions or exceedances;</p> <p>2. The corrective actions taken after an excursion or exceedance;</p> <p>3. Summary information on the number, duration, and cause of monitor downtime incidents; and</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>stringent of: 115 psig or 95 % of the average discharge pressure recorded during performance testing as specified in <i>Permit: APC-81/0829 (A7)</i> for no more than 3 minutes in any 1-hour or more than 15 minutes in any 24-hour period.</p> <p>C. Excursions <i>[Reference: 40 CFR Part 64.6(c)(2) dated 10/22/97]</i></p> <ol style="list-style-type: none"> 1. An excursion shall be defined as any deviation from the ranges specified in the Indicator Ranges (B)(1) or (B)(2). 2. An excursion shall trigger an inspection, corrective action, and a reporting requirement. <i>[Reference: 40 CFR Part 64.7(d) dated 10/22/97]</i> <p>D. Monitoring/Measurement Approach <i>[Reference: 40 CFR Part 64.6(c)(1)(ii) dated 10/22/97]</i></p> <ol style="list-style-type: none"> 1. Pressure drop for the primary indicator shall be based on pressure transducer measurements obtained upstream of the Agglo-filtering modules and upstream of the Cylolab Droplet Separators. 2. Pressure drop for the secondary indicator shall be based on pressure transducer measurements obtained at the quench/pre-scrubber recirculation pumps discharge. <p>E. At all times, the Company shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. <i>[Reference: 40 CFR Part 64.7(b) dated 10/22/97]</i></p>	<p>Continuous</p> <p>E. Data Collection Procedures for both indicators <i>[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]</i> Data shall be collected and stored via the Refinery Process Historian</p> <p>F. Averaging Period for both indicators <i>[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]</i> On a 1-minute basis</p>	<p>4. If triggered, a description of the actions taken to implement the QIP.</p> <p>vi. Certification None in addition to that required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.2 dated 12/11/2000]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>F. At all times, the Company shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are cause in part by poor maintenance or careless operation are not malfunctions. [Reference: 40 CFR Part 64.7(c) dated 10/22/97]</p>		
<p>3. Sulfur dioxide (SO₂):</p> <p>i. Emission Standards:</p> <p>A. SO₂ emissions from the FCCU WGS+ shall not exceed 25 ppmvd @ 0% O₂ on a rolling 365 day average, 50 ppmvd @ 0% O₂ on a rolling 7 day average, and 361 TPY. [Reference Permit APC-82/0981 (A7)]</p>	<p>ii. Compliance Method: [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</p> <p>A. Compliance with Emission Standard (A) shall be based on monitoring/testing and recordkeeping requirements</p> <p>iii. Monitoring/Testing: [Reference Permit APC-82/0981 (A7)]</p> <p>A. The SO₂ emissions shall be continuously monitored by CEMS.</p> <p>B. RESERVED</p> <p>C. The CEMS for SO₂ and O₂ must be certified by</p>	<p>v. Reporting Requirement:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.e.1.iv. “General Conditions” in Condition 3, Table 1.e.1.v [Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p> <p>vi. Certification Requirement:</p> <p>That required by Condition 3(c)(3) of this</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix “B”. The QA/QC procedures for the SO₂ and O₂ CEMS shall be in accordance with the procedures described in 40 CFR 60, Appendix “F”. For the purpose of determining the Relative Accuracy of the CEMS, the applicable standard shall be 25 ppmvd.</p> <p>iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.e.1.iv.</p>	<p>permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p>
<p>4. Nitrogen Oxides (NO_x):</p> <p>i. Emission Standard:</p> <p>A. RESERVED</p> <p>B. Before the WGS+ system is operational, NO_x emissions from the FCCU WGS+ shall not exceed 118 ppmvd at 0% O₂ on a 7-day rolling average basis and 719.5 TPY on a 365-day rolling average basis. [Reference <u>Permit APC-82/0981 (A7)</u>]</p> <p>C. After the commencement of operation of the NO_x control system, NO_x emissions shall not exceed 20 ppmvd @ 0% O₂ on a 365-day rolling average basis, 40 ppmvd @ 0% O₂ on a 7-day rolling average basis and 207 TPY on a 365-day rolling average basis. [Reference <u>Permit APC-82/0981 (A7)</u>]</p>	<p>ii. Compliance Method:</p> <p>A. Compliance with Emission Standards B and C shall be based on CEMS. [Reference <u>Permit APC-82/0981 (A7)</u>]</p> <p>iii. Monitoring/Testing:</p> <p>A. NO_x emissions shall be monitored by CEMS.</p> <p>B. The CEMS for NO_x and O₂ must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix “B”. The QA/QC procedures for the NO_x and O₂ CEMS shall be demonstrated in accordance with 40 CFR, Part 60, Appendix “F”. [Reference <u>Permit APC-82/0981 (A7)</u>]</p> <p>iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.e.1.iv.</p>	<p>v. Reporting: [Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p> <p>A. That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.e.1.iv. “General Conditions” in Condition 3, Table 1.e.1.v.</p> <p>B. RESERVED</p> <p>vi. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p>
<p>5. Carbon Monoxide (CO):</p> <p>i. Emission Standard: [Reference <u>Permit APC-82/0981 (A7)</u>]</p> <p>A. CO emissions from the FCCU WGS+</p>	<p>ii. Compliance Method: [Reference <u>Permit APC-82/0981 (A7)</u>]</p> <p>A. Compliance with Emission Standard (A) shall be based on CEMS.</p> <p>B. Compliance with Emission Standard (B) is</p>	<p>v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “Conditions Applicable to Multiple</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>shall not exceed 500 ppmv dry as a 1-hour average, and 3768 TPY.</p> <p>B. The Owner/Operator shall not cause or allow the emission of carbon monoxide from the FCCU unless it is burned at no less than 1300° F for at least 0.3 seconds in the FCCU COB, or combusted in the FCCU regenerator when operating in full burn mode..</p>	<p>defined as maintaining a firebox temperature of no less than 1300° F as measured on a minute average basis.</p> <p>iii. Monitoring/Testing: <i>[Reference Permit APC-82/0981 (A7)]</i></p> <p>A. The Owner/Operator shall monitor the firebox temperature of the FCCU COB continuously.</p> <p>B. CO emissions shall be monitored by CEMS.</p> <p>C. The QA/QC procedures for the CO CEMS shall be in accordance with the procedures in Appendix “F” of 40 CFR Part 60.</p> <p>iv. Recordkeeping: Comply with “Conditions Applicable to Multiple pollutants” in Condition 3, table 1.e.1.iv.</p>	<p>Pollutants” in Condition 3, table 1.e.1.iv.</p> <p>“General Conditions” in Condition 3, Table 1.e.1.v. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>
<p>6. Volatile Organic Compounds (VOCs):</p> <p>i. Emission Standard: <i>[Reference Permit APC-82/0981 (A7)]</i></p> <p>A. VOC emissions from the FCCU WGS+ shall not exceed 0.40 lb/mmcsf and 41.4 tons per year.</p> <p>B. The leak detection and repair requirements to control fugitive VOC emissions from the FCCU shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR 60, Subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the FCCU shall be in accordance with the</p>	<p>ii. Compliance Method: <i>[Reference Permit APC-82/0981 (A7)]</i></p> <p>A. Compliance with Emission Standard A shall be based on monitoring/testing and recordkeeping requirements</p> <p>B. Compliance with emission standard B for new components in light liquid and gaseous service shall be based on compliance with the standards in 40 CFR 63.162 through 63.177.</p> <p>C. Compliance with the standards in 40 CFR subpart GGG for existing components in light liquid gaseous service shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648.</p> <p>C. RESERVED</p> <p>D. RESERVED</p>	<p>v. Reporting Requirement:</p> <p>A. That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.e.1.iv.</p> <p>“General Conditions” in Condition 3, Table 1.e.1.v. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>B. Leak detection and repair reports shall be submitted as required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. <i>[Reference Permit APC-82/0981 (A7)]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>Consent Decree for both new and existing components in light liquid and gaseous service.</p> <p>ii. RESERVED</p>	<p>iii. Monitoring/Testing: <i>[Reference Permit APC-82/0981 (A7)]</i> A. The Owner/Operator shall conduct performance testing every three years, unless the Department approves less frequent testing. Each performance test conducted shall be performed in accordance with Reference Method 25A in Appendix “A” of 40 CFR Part 60.</p> <p>iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.e.1.iv.</p>	<p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>
<p>7. Sulfuric Acid (H₂SO₄):</p> <p>i. Emission Standard: <i>[Reference Permit APC-82/0981 (A7)]</i> A. H₂SO₄/SO₃ emissions from the FCCU WGS+ shall meet one of the following standards:</p> <ol style="list-style-type: none"> 1. H₂SO₄ emissions shall be reduced by at least 40% across the wet gas scrubber system; or 2. The outlet concentration of H₂SO₄/SO₃ from the stack shall be no greater than 10 ppmvd 	<p>ii. Compliance Method: <i>[Reference Permit APC-82/0981 (A7)]</i> Compliance with the Emission Standard A shall be based on stack testing conducted in accordance with Condition 3, Table 1.e.7.iii.monitoring/testing and recordkeeping requirements.</p> <p>iii. Monitoring/Testing: <i>[Reference Permit APC-82/0981 (A7)]</i> The Owner/Operator shall conduct annual performance tests, unless the Department approves less frequent testing, in accordance with Reference Method 8 in Appendix “A” of 40 CFR Part 60, or other testing methodology approved by the Department.</p> <p>iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.e.1.iv.</p>	<p>v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.e.1.iv. “General Conditions” in Condition 3, Table 1.e.1.v. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>
<p>8. Lead (Pb):</p> <p>i. Emission Standard: <i>[Reference Permit APC-82/0981 (A7)]</i> Pb emissions from the FCCU WGS+ shall not exceed 4.37 E-04 pounds per thousand pounds of coke burned.</p>	<p>ii. Compliance Method: <i>[Reference Permit APC-82/0981 (A7)]</i> Compliance with the Emission Standard shall be based on the stack test based emission factor in terms of lb/Mlb coke burn rate.</p> <p>iii. Monitoring/Testing: <i>[Reference Permit APC-82/0981 (A7)]</i></p>	<p>v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.e.1.iv. “General Conditions” in Condition 3, Table</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>The Owner/Operator shall conduct performance testing every three years based on Reference Method 12 in Appendix “A” of 40 CFR Part 60, unless the Department approves less frequent testing</p> <p>iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.e.1.iv.</p>	<p>1.e.1.v. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>
<p>9. Hazardous Air Pollutants (HAPs): <i>[Reference Permit APC-82/0981 (A7)]</i></p> <p>i. Emission Standard: The Owner/Operator shall comply with all the applicable requirements of 40 CFR Part 63, subpart UUU.</p>	<p>ii. Compliance Method: <i>[Reference Permit APC-82/0981 (A7)]</i> Compliance with the Emission Standard shall be based on monitoring/testing and recordkeeping requirements</p> <p>iii. Monitoring/Testing: <i>[Reference Permit APC-82/0981 (A7)]</i> A. CO emissions shall be monitored by CEMS. B. The QA/QC procedures for the CO CEMS shall be in accordance with the procedures in Appendix “F” of 40 CFR Part 60.</p> <p>iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.e.1.iv.</p>	<p>v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>A. The Owner/Operator shall submit semiannual reports by January 31 and July 31 of each calendar year for the preceding semiannual period in accordance with the requirements of §63.1575(c). The report must include each instance in which an emission limit, operating standard or work practice standard is not met, or if no deviations occurred the report must contain a statement that there were no deviations during the reporting period and that no continuous monitoring system was inoperative, out of control, repaired or adjusted. An electronic copy of the report shall be sent to the Department’s engineer for the refinery. <i>[Reference: 40 CFR 63, Subpart UUU, §63.1575(c)]</i></p> <p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>10. Visible Emissions:</p> <p>i. Emission Standard:</p> <p>A. The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. <i>[Reference 7 DE Admin. Code 1114, Sections 2.1 and 2.3, dated 7/17/84, 40 CFR Part 60, Subpart J, §60.102(a)(2) and Regulation No20 .Section 11 dated 11/27/85 and Permit: APC-82/0981(A7)].</i></p> <p>B. RESERVED</p>	<p>ii. Compliance Method:</p> <p>A. Compliance with Emission Standard A shall be based on Monitoring/Testing requirements. <i>[Reference Permit APC-82/0981 (A7)]</i></p> <p>B. RESERVED</p> <p>iii. Monitoring/Testing:</p> <p>The Owner/Operator shall continuously monitor the pressure drop across the Agglo-filtering modules and Cyclolab Droplet Separators and the quench/pre-scrubber recirculation pump discharge pressure. The determination that the opacity from the FCCU WGS stack, when it is operating, satisfies the requirements of Emission Standard (A) shall be based upon the following parametric monitoring:</p> <p>A. The minimum delta-P across the Agglo-Filtering modules and Cyclolab Droplet Separators shall be 6 inches WC, evaluated on a one minute average basis; and</p> <p>B. A minimum discharge pressure, evaluated on a one minute average basis, from the quench/pre-scrubber recirculation pumps satisfying the less stringent of:</p> <ol style="list-style-type: none"> 1. 115 psig, or 2. The discharge pressure equivalent to 95% of the average discharge pressure recorded during performance testing performed in accordance with the methods identified in Condition (e)(2)(iv), provided that such performance testing also includes a demonstration of compliance with the visual emissions standard identified in Emission Standard (A) using EPA Method 9. <p>C. Notwithstanding Condition 3, Table 1.e.10.iii.B,</p>	<p>v. Reporting Requirement:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement:</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>if the discharge pressure from the quench/pre-scrubber falls below the minimum discharge pressure established under Condition 3, Table 1.e.10.iii.B for greater than 3 minutes in any hour or more than 15 minutes in any 24 hour period, the Owner/Operator may perform a visual emission test in accordance with EPA Reference Method 9 to establish that visible emissions do not exceed the opacity standard specified in Emission Standard (A) at the reduced discharge pressure. In such case, the new minimum discharge pressure from the quench/pre-scrubber recirculation pumps shall be the average discharge pressure recorded during the Method 9 test, and shall be used in conjunction with Condition 3, Table 1.e.10.iii.A to evaluate compliance with Emission Standard (A). <i>[Reference Permit APC-82/0981 (A7)].</i></p> <p>D. For periods when the CO Boiler (23-H-3) is firing refinery fuel gas only, the Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation.</p> <p>1. If visible emissions are observed, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with Paragraph E below.</p> <p>2. If no visible emissions are observed, no further action is required.</p> <p>E. If required under paragraphs D above, the Owner/Operator shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual observations at fifteen-second intervals for a period of not less than one hour except that the</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. : <i>[Reference 7 DE Admin. Code 1120 Section 1.5.3 dated 12/7880]</i></p> <p>iv. Record keeping: The following records shall be maintained in accordance with Condition 3(b): Detailed daily records of observations of visible emissions or the absence of visible emissions or other records identified in the approved alternative plan. <i>[Reference Permit APC-82/0981 (A7)]</i></p>	
f. <u>Emission Unit 24:</u> Refinery Gas Plant (No emission points, i.e., This unit has only fugitive emissions that are covered under Section o under the heading “Facility Wide Requirements”)		
ga. <u>Emission Unit No. 25:</u> Reformer and Reformulated Gasoline 2000 Project (RFG 2K Project): Cracked Naphtha Hydrotreater (CNHT) Unit, Butamer Unit and Cooling Tower (Emission points 25-1 and 25-2)		
<p>1. Conditions Applicable to Multiple Pollutants:</p> <p>i. Operational Limitations:</p> <p>A. The heat inputs to 25-H-401 and 25-H-402 shall not exceed 107 mmBtu/hour and 78.7 mmBtu/hour respectively, both on a twenty-four hour block average (i.e., calendar day) basis. <i>[Reference: Permit:APC-98/0522]</i></p> <p>B. RESERVED</p> <p>C. The sulfidic caustic stream from the</p>	<p>ii. Compliance Method: <i>[Reference: Permit:APC-98/0522]</i></p> <p>A. Compliance with operational limitation A. shall be demonstrated using hourly fuel usage and HHV obtained for that day.</p> <p>B. RESERVED</p> <p>C. Compliance with Operational Limitations (C) and (D) shall be based on recordkeeping.</p> <p>D. Compliance with Operational Limitation in (E) shall be based on CEMS</p>	<p>v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>CNHT Unit shall be treated in the spent caustic treater before being discharged to the WWTP. <i>[Reference: Permit: APC-98/0523]</i></p> <p>D. Only desulfurized refinery fuel gas (RFG) and/or natural gas may be fired in units 25-H-401 and 25-H-402.</p> <p>E. The hydrogen sulfide (H₂S) content in the desulfurized RFG shall not exceed 162 ppmv(d) (0.10 gr/dscf) on a 3 hour rolling average basis.</p>	<p>iii. Monitoring/Testing: <i>[Reference: Permit: APC-98/05222, Permit: APC-98/0523 and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. The Owner/Operator shall monitor the fuel usage of 25-H-401 and 25-H-402 on an hourly basis.</p> <p>B. The Owner/Operator shall monitor fuel HHV on a daily basis. The minimum data capture requirement for the HHV of the fuel shall be no less than 95 percent of the time in any twelve consecutive months, i.e., the Owner/Operator may miss no more than 18 days of sampling and/or analyzing the fuel in any twelve consecutive months. For any missing data the Owner/Operator shall substitute the highest recorded daily HHV for the previous month. <i>[Reference: Permit: APC-98/0522]</i></p> <p>C. The Owner/Operator shall monitor H₂S concentration in RFG continuously. The monitoring instrument shall be located downstream of all process steps that increase the concentration of H₂S in RFG prior to its being combusted in any fuel burning device. The H₂S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix “B” and comply with the Quality assurance requirements of 40 CFR 60, Appendix “F.” The monitoring instrument shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix “B.” The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix “A.”</p> <p>D. The Owner/Operator shall continuously monitor the cooling water flow rate.</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	iv. Recordkeeping: The Owner/Operator shall maintain the following records in accordance with Condition 3(b): <i>[Reference: Permit: APC-98/0522 and APC-98/0523]</i> . A. Daily fuel HHV B. Record of operating hours of each heater.. C. the type of fuel combusted in 25-H-401 and 25-H-402 and the hourly fuel usage by each heater. D. All 3-hour rolling averages of H ₂ S content in RFG. E. Data capture of daily fuel HHV; and F. RESERVED	
2. Particulate Matter: i. Emission Standards: A. PM ₁₀ emissions shall not exceed the following: <i>[Reference: Permit: APC-98/0522 and 7 DE Admin. Code 1104, Section 2.1 dated 2/1/81]</i> <u>1.</u> For 25-H-401: 3.3 TPY on a rolling twelve month basis <u>2.</u> For 25-H-402: 2.5 TPY on a rolling twelve month basis <u>3.</u> For Units 25-H-401 and 25-H-402: 7.6 lb/mm SCF of fuel gas combusted B. RESERVED C. Cooling tower PM ₁₀ emissions shall not exceed 6.6 tons per year on a rolling twelve month basis. <i>[Reference: Permit: APC-98/0523]</i>	iii. Compliance Method: <i>[Reference: Permit: APC-98/0522]</i> A. Compliance with Emission Standard (A) shall be based on the fuel gas usage for each heater. B. RESERVED C. Compliance with Emission Standard (C) shall be based on the proper operation of the high-efficiency mist eliminators having a vendor guaranteed emission factor of 0.002 percent drift loss per pound of cooling water circulated and on the monitoring requirements. <i>[Reference: Permit: APC-98/0523]</i> iv. Monitoring/Testing: <i>[Reference: Permit: APC-98/0522, Permit: APC-98/0523 and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> A. The Owner/Operator shall conduct a quarterly test of total solids using Method 2540B of Standard Methods for the Examination of Water and Wastewater; B. RESERVED v. Recordkeeping: The Owner/Operator shall maintain the following	vi. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>records in accordance with Condition 3(b): <i>[Reference: Permit: APC-98/0522, Permit: APC-98/0523 and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. Results of quarterly Method 2540B tests B. RESERVED</p>	
<p>3. Sulfur dioxide (SO₂):</p> <p>i. Emission Standards: <i>[Reference: Permit: APC-98/0522]</i></p> <p>A. For 25-H-401: 12.6 TPY on a rolling twelve month basis B. For 25-H-402: 9.2 TPY on a rolling twelve month basis</p>	<p>iii. Compliance Method: <i>[Reference: Permit: APC-98/0522]</i></p> <p>A. Compliance with Emission Standards (A) and (B) shall be based on the rolling twelve month fuel usage and the rolling twelve month average S content of the fuel as determined using H₂S CEMS.</p> <p>iv. Monitoring/Testing: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.ga.1.iii.</p> <p>v. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.ga.1.iv.</p>	<p>v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>
<p>4. Nitrogen Oxides (NO_x):</p> <p>i. Emission Standard: <i>[Reference: Permit: APC-98/0522]</i></p> <p>A. For 25-H-401: 13.7 TPY on a rolling twelve month basis B. For 25-H-402: 10.1TPY on a rolling twelve month basis C. For 25-H-401 and 25-H-402: 0.029 lb/mmBtu.</p>	<p>iii. Compliance Method: <i>[Reference: Permit: APC-98-0522]</i></p> <p>Compliance with the Emission Standards shall be based on the fuel gas usage for each heater, the HHV of the fuel obtained from daily samples and the annual stack test based emissions factors.</p> <p>iv. Monitoring/Testing: <i>[Reference: Permit: APC-98-0522]</i></p> <p>Annual stack emission testing shall be conducted using EPA Reference Method 7 E in Appendix “A” of 40 CFR Part 60 on each heater to determine compliance with the NO_x emission factor of 0.029 lb/mmBtu.</p> <p>v. Recordkeeping: Comply with “Conditions Applicable to Multiple</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	Pollutants” in Condition 3, Table 1.ga.1.iv.	
5. Carbon Monoxide (CO): i. Emission Standard: <i>[Reference: Permit:APC-98/0522]</i> A. For 25-H-401: 12.9 TPY on a rolling twelve month basis. B. For 25-H-402: 9.5 TPY on a rolling twelve month basis. C. For 25-H-401 and 25-H-402: CO emissions shall not exceed 35 lb/mmSCF fuel gas combusted	ii. Compliance Method: <i>[Reference: Permit:APC-98/0522]</i> Compliance with the emission standards shall be based on the fuel gas usage for each heater. iii. Monitoring/Testing: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.ga.1.iii. iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.ga.1.iv.	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>
6. Volatile Organic Compounds (VOCs): i. Emission Standard: VOC emissions shall not exceed: A. For 25-H-401 and 25-H-402: 2.8lb/mmSCF of fuel gas combusted. <i>[Reference: Permit:APC-98/0522]</i> B. For the CNHT, Butamer and Alkylation Units fugitive emissions shall not exceed 8.4 tons per year on a rolling quarterly basis. <i>[Reference: Permit:APC-98/0523]</i> C. For the cooling tower: 5.5 tons per year on a rolling quarterly basis. <i>[Reference: Permit:APC-98/0523]</i>	ii. Compliance Method: A. Compliance with Emission Standard (A) shall be based on fuel gas usage for each heater. <i>[Reference: Permit:APC-98/0522]</i> B. Compliance with Emission Standards (B) and (C) shall be based on the monitoring and testing requirements <i>[Reference: Permit:APC-98/0523]</i> iii. Monitoring/Testing: <i>[Reference: Permit:APC-98/0522 and Permit:APC-98/0523, and 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> A. For determining compliance with Emission Standard (B) the Owner/Operator shall use the results of the quarterly LDAR monitoring program using the EPA Correlation Approach described in the 1995 Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017 dated November 1995. B. For determining compliance with Emission Standard (C), the VOC concentration in the cooling water shall be obtained quarterly using a method approved by the Department. To	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>determine the cooling water VOC concentration, samples shall be taken at the entrance and exit of the cooling tower and at the point of makeup water addition. The entrance is the point at which cooling water leaves the cooling tower prior to being returned to the process equipment. The exit is the point at which the cooling water is introduced to the cooling tower after being used to cool the process fluid. A minimum of three sets of samples shall be taken at the entrance and exit and the point of make up water entry. The average concentrations shall then be calculated for each set of samples.</p> <p>iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): <i>[Reference: Permit:APC-98/0522 and Permit:APC-98/0523, 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. Results of quarterly LDAR monitoring showing calculated VOC emissions in tons per year by component type on a rolling quarterly basis</p> <p>B. Results of cooling water VOC monitoring</p> <p>C. RESERVED</p>	
<p>7. Visible Emissions: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four</p>	<p>ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. <i>[Reg. No. 30 Section 6(a)(3) dated 12/11/00].</i></p> <p>iii. Monitoring/Testing: A. The Owner/Operator shall conduct daily</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>(24) hour period. <i>[Reference Reg. No. 14, Section 2.1, dated 7/17/84].</i></p>	<p>qualitative stack observations to determine the presence of any visible emissions when the unit is in operation.</p> <ol style="list-style-type: none"> <u>1</u> If visible emissions are observed, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (B) below. <u>2</u> If no visible emissions are observed, no further action is required. <p>B. If required under paragraph A above, the Owner/Operator shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual observations at fifteen-second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. <i>[Reference 7 DE Admin. Code 1120 Section 1.5.3 dated 12/7/88] and 7 DE Admin. Code 1130 Section 6.1.3 dated 12/11/00].</i></p> <p>iv. Record keeping: The following records shall be maintained in accordance with Condition 3(b) <i>[Reference 7 DE Admin. Code 1130 Section 6.1.3 dated 12/11/00]</i></p> <ol style="list-style-type: none"> A. Observation records shall be maintained and made available to the Department upon request. B. Records of all maintenance performed on these units shall be maintained and made available to the Department upon request. 	<p><i>6.2.1 dated 12/11/00</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
gb. Emission Units No. 24, 25 & 43: Tier 2 Gasoline Project involving modifications, ancillary equipment and tie-ins, and relocation of certain existing equipment to the existing cracked naphtha hydrotreater (CNHT, Unit 25), the existing Selective Hydrogenation Unit at the Ether Plant (SHU, Unit 43), and the Diglycolamine system (DGA, Unit 24)		
<p>1. Volatile Organic Compounds (VOCs):</p> <p>i. Emission Standards: <i>[Reference: Permit APC-2005/0197]</i></p> <p>A. Fugitive VOC emissions from the new equipment at the CNHT, SHU and DGA and the new ancillary equipment and tie-ins shall not exceed 10.4 tons per year on a rolling quarterly basis.</p> <p>B. Fugitive VOC emissions from the new equipment shall utilize an internal leak definition of 2,000 ppm for all pumps and 500 ppm for all valves, excluding pressure relief devices.</p>	<p>ii. Compliance Method <i>[Reference: Permit APC-2005/0197]</i></p> <p>A. Compliance with Emission Standard (A) shall be demonstrated by using the results of the quarterly LDAR monitoring program using the EPA Correlation Approach described in the 1995 Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017 dated November 1995.</p> <p>B. Compliance with Emission Standard (B) shall be based on monthly monitoring of pumps and valves using a method approved by the Department.</p> <p>iii. Monitoring/Testing: <i>[Reference: Permit APC-2005/0197]</i> None in addition to those listed in Condition 3, Table 1.gb.1.ii.</p> <p>iv. Recordkeeping <i>[Reference: Permit APC-2005/0197]</i> The following records shall be maintained in accordance with Condition 3(b): Results of the monthly monitoring of pumps and valves required by Compliance Method (B).</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vii. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
h. Emission Unit No. 26: Polymerization Unit (No emission points, i.e, This unit has only fugitive emissions that are covered under Section o under the hearing "Facility Wide Requirements")		
i. Emission Unit No. 27: Alkylation Unit (No emission points, i.e. This unit has only fugitive emissions that are covered under Section o under the heading "Facility Wide Requirements")		
j. Emission Unit No. 28: Sulfur Recovery Area (SRA); Claus Units I and II; Sulfur Pits and Shell Claus Offgas Treatment (SCOT) Units I and II. (Emission points 28-1 and 28-2)		
<p>1. Conditions Applicable to Multiple Pollutants</p> <p>i. Operational Limitations [Reference: Permit APC-98/0264(A7)]</p> <p>A. The SRA shall be operated so as to not exceed the following Equivalent Sulfur Plant Capacity (ESPC) expressed in long tons per day (LTPD), under the following operating scenarios:</p> <p>i. When both Claus trains and SCOT units are in operation, the SRA shall not be operated at an ESPC greater than 822 LTPD on a 12 month rolling average.</p> <p>ii. When Claus train I (SRU I) and/or SCOT II is shutdown, Claus train II (SRU II) and SCOT I shall not operate at an ESPC greater than 499 LTPD on a 12 month rolling average.</p> <p>iii. When Claus train II (SRU II) and/or SCOT I is shutdown,</p>	<p>ii. Compliance Method [Reference: Permit APC-98/0264(A7)]</p> <p>A. Compliance with Operational Limitations (A), (B), (D), (H) and (I) shall be based upon recordkeeping.</p> <p>B. Compliance with Operational Limitation (C) shall be based upon a continuous monitoring system ("CMS").</p> <p>C. Compliance with Operational Limitation (F) is defined as maintaining a negative pressure at the sulfur pits as measured on a minute average basis.</p> <p>D. RESERVED</p> <p>iii. Monitoring/Testing: [Reference: Permit APC-98/0264(A7)]</p> <p>A. The Owner/Operator shall continuously monitor and record the concentration (dry basis) of H₂S in RFG before it is combusted in any fuel burning device. The monitoring instrument shall be located downstream of all process steps that increase the concentration of H₂S in RFG prior to its being combusted in any fuel burning device. The</p>	<p>v. Reporting:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: [Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00 [Reference: Regulation 30, Section 6(a)(3)(iii) dated 12/11/00 and Permit APC-90/0264 (A7)]</p> <p>A. RESERVED</p> <p>B. A quarterly SO₂ CERMS report for the preceding quarter shall be submitted to the Department by January 30, April 30, July 30 and October 30 of each calendar year and shall include the information required by 40 CFR 60.7(c) and (d).</p> <p>C. The H₂S CMS report shall include a report listing all rolling 3 hour periods during which the average concentration of H₂S as measured by the H₂S CMS exceeds 162 ppmv (dry) or 0.10 grain/dscf, quarterly audit results, data capture for the period and details of out of control periods. The data submitted with the Owner/Operator's quarterly H₂S CMS NSPS report for the facility shall satisfy this reporting</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>Claus train I (SRU I) and SCOT II shall not operate at an ESPC greater than 510 LTPD on a 12 month rolling average.</p> <p>B. The combined heat input to SCOT I (28-S-203) and SCOT II (28-S-804) shall not exceed 865,000 mmBtu in any rolling twelve month period.</p> <p>C. Only desulfurized refinery fuel gas (RFG) and/or natural gas may be fired in the SCOT I and SCOT II units. The hydrogen sulfide content in the RFG combusted in the SCOT incinerators shall not exceed 0.10 grain/dscf on a 3 hour rolling average.</p> <p>D. Except as provided in Condition 3, Table 1Condition j 2 ii, tail gases from SRU I and/or SRU II shall be treated by the SCOT I Unit and/or the SCOT II Unit at all times.</p> <p>E. RESERVED</p> <p>F. The steam eductor system shall be operating properly at all times when molten sulfur is stored in the sulfur pits.</p> <p>G. RESERVED</p> <p>H. The Owner/Operator shall carry out an annual tune up of each SCOT incinerator burner.</p> <p>I. The sulfur pit vapors shall be</p>	<p>H₂S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F" The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." [Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</p> <p>B. The Owner/Operator shall continuously monitor the pressure at the sulfur pits.</p> <p>iv. Recordkeeping The following records shall be maintained in accordance with Condition 3(b): [Reference: Permit <u>APC-98/0264(A7)</u>]</p> <p>A. Daily sulfur production from each Claus Unit</p> <p>B. Logs of annual tune up performed on the SCOT incinerator burners</p> <p>C. The type of fuel combusted in SCOT I and SCOT II and the fuel usage, and HHV</p> <p>D. All periods when the pressure at the sulfur pits is not below atmospheric pressure.</p> <p>E. All periods when the sulfur pit vapors are diverted from the reactors into the SCOT incinerators and a description of the atypical operation causing the change.</p>	<p>requirement.</p> <p>D. The owner/operator shall notify the Department's Air Quality Management Section of shut downs and start ups with as much advanced notice as practicable.</p> <p>vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>routed to the Claus reactors at all times except during periods of low acid gas generation and other atypical operating conditions.</p>		
<p>2. Particulate Matter:</p> <p>i. Emission Standards: <i>[Reference: Permit APC-98/0264(A7) and :7 DE Admin. Code 1104 dated 2/1/81]</i></p> <p>A. PM₁₀ emissions shall not exceed 5.09 lb/hr in each SCOT stack and 22.3 TPY combined from both SCOT stacks. All TSP emissions shall be considered PM₁₀.</p> <p>B. RESERVED</p>	<p>ii. Compliance Method: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i></p> <p>Compliance with the Emission Standard (A) shall be based on stack testing conducted in accordance with Condition 3, Table 1.j.2.iii.A.</p> <p>iii. Monitoring/Testing: <i>[Reference: Permit APC-98/0264(A7)]</i></p> <p>A. The Owner/Operator shall conduct a stack test at 5 year intervals while processing both refinery acid gas and gasifier acid gas streams in the Claus units. The Owner/Operator shall conduct a Department approved stack test comprising of 3 runs of sufficient duration to evaluate compliance. Stack test results indicating below detection limits because of insufficient "catch" at the end of three 4 hour runs shall be accepted as proof of compliance. Stack testing shall be performed in accordance with Reference Method 5B in Appendix "A" of 40 CFR Part 60 and Reference Method 202 in Appendix "M" of 40 CFR Part 51, or other testing methodology proposed by the Owner/Operator and approved by the Department.</p>	<p>v. Reporting:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, table 1.j.1.v. "General Conditions" in Condition 3, Table 1.j.1.v <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification:</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	iv. Recordkeeping: <i>[Reference: Permit APC-98/0264(A7)]</i> Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1.j.1.iv.	
<p>3. Sulfur dioxide (SO₂): <i>[Reference: Permit APC-98/0264(A7)]</i></p> <p>i. Emission Standard: SO₂ emissions shall not exceed 0.025 percent by volume (250 ppm) in each SCOT stack at zero percent oxygen on a dry basis on a twelve hour rolling average basis, except during startup or shutdown conditions, 122 lb/hour calculated on a 24 hour rolling average basis and 535 TPY combined from both SCOT stacks. During startup and shutdown conditions, the SO₂ emission limits listed in the Operational Limitation shall apply in lieu of the 250 ppm and 122 lb/hour limits.</p> <p>ii. Operational Limitations: <i>[Reference: Permit APC-98/0264(A7)]</i></p> <p><u>SULFUR RECOVERY AREA START UP AND SHUT DOWN SCENARIOS</u></p> <p>The following short term emission limits listed below shall apply during start up and shut down scenarios in lieu of the short term emission limits (<i>i.e.</i>, 250 ppm and 122 lb/hr) identified in the Emission Standard:</p> <p>1. <u>SCENARIO 1: Planned SCOT I and/or SCOT II Shut Down:</u> When either SCOT unit shut down is planned, the stand by SCOT unit shall be brought to a state of readiness for operation before the operating SCOT unit is taken out of service.</p>	<p>iii. Compliance Method: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i></p> <p>A. Compliance with the Emission Standard shall be determined by using continuous emissions rate monitoring systems (CERMS) to continuously monitor SO₂ emissions from the stacks of both SCOT I and SCOT II.</p> <p>B. Compliance with the Operational Limitation shall be demonstrated by the Monitoring/Testing requirement (B).</p> <p>iv. Monitoring/Testing <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i></p> <p>A. The SO₂ CERMS on SCOT Units I and II shall conform to the Quality Assurance Procedures in Appendix "F" of 40 CFR Part 60.</p> <p>B. During start-up and shutdown periods of incineration, ambient air monitoring data for the affected period shall be collected daily.</p> <p>v. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i></p> <p>A. CERMS data showing SO₂ emissions in lbs/hour from the stacks of SCOT I and SCOT II including results of daily calibration, quarterly cylinder gas audits and annual relative accuracy test audits for the CERMS.</p>	<p>vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>A. The Owner/Operator shall submit semiannual reports by January 31 and July 31 of each calendar year for the preceding semiannual period in accordance with the requirements of §63.1575(c). The report must include each instance in which an emission limit, operating standard or work practice standard is not met, or if no deviations occurred the report must contain a statement that there were no deviations during the reporting period and that no continuous monitoring system was inoperative, out of control, repaired or adjusted. An electronic copy of the report shall be sent to the Department's engineer for the refinery. <i>[Reference: 40 CFR 63, Subpart UUU, §63.1575(c)]</i></p> <p>B. During planned start-up and shutdown periods of incineration, ambient air monitoring data for the affected period shall be submitted to the Department daily. At the Department's request, copies of available air monitoring data shall be furnished to the Air Quality Management Division.</p> <p>vii. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>Within 2 hours after the operating SCOT unit is shutdown, all of the tailgases shall be treated in the standby SCOT unit. The maximum amount of SO₂ that shall be emitted during this 2-hour period shall not exceed 4.2 tons.</p> <p>2. <u>SCENARIO 2: Melting and Burnout After Planned Shut Down of SRU I and SRU II:</u> After SRU I or SRU II has been shut down, the off gases resulting from the residual sulfur melting and burnout shall be incinerated before exiting the stack. The melting and burn-out procedure shall not exceed 7 days. The maximum amount of SO₂ resulting from this procedure shall not exceed 15 tons per day.</p> <p>3. <u>SCENARIO 3: Planned Start Up of SRU I and SRU II:</u> When SRU-I or SRU-II is returned to service the tail gas from the unit being returned to service shall be incinerated until the proper ratio of H₂S:SO₂ in the acid feed gas is attained. This ratio shall be established within 2 hours at which time the tail gas shall be fed to either SCOT Unit. During this start-up period the emissions of SO₂ shall not exceed 4 tons per start up event for either SRU.</p> <p>4. <u>SCENARIO 4: Burnout of SCOT Reactor During Shutdown of Either SCOT Unit:</u> After the planned shut down of either</p>		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>SCOT I or II, in order to save the catalyst it can be slowly burned free of sulfur. SO₂ emissions from this operation shall not exceed 9.6 tons, over a 6 day period.</p> <p>During start-up and shutdown periods of incineration, corrective action shall be taken if there is any indication that an exceedance of ambient air standards might take place.</p>		
<p>4. Nitrogen Oxides (NO_x):</p> <p>i. Emission Standard: <i>[Reference: Permit APC-98/0264(A7)]</i> NO_x emissions shall not exceed 7.0 lb/hr in each SCOT stack and 51.9 TPY combined from both SCOT stacks.</p>	<p>iii. Compliance Method: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i> Compliance with the Emission Standard shall be based on stack testing conducted in accordance with Condition 3, Table 1.j.4.iv.</p> <p>iv. Monitoring/Testing <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i> The Owner/Operator shall conduct an annual stack test unless the Department approves less frequent testing. The Department reserves the right to require more frequent testing or require installation of CEMS</p> <p>v. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1.j.1.iv.</p>	<p>vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, table 1.j.1.v. "General Conditions" in Condition 3, Table 1.j.1.v <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vii Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>
<p>5. Carbon Monoxide (CO):</p> <p>i. Emission Standard: : <i>[Reference: Permit APC-98/0264(A7)]</i> CO emissions shall not exceed 100 ppmvd in each SCOT stack and 90.4 TPY combined from both SCOT stacks.</p>	<p>ii. Compliance Method: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i> Compliance with the Emission Standard shall be based on stack testing conducted in accordance with Condition 3, Table 1.j.5.iii.</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, table 1.j.1.v. "General Conditions" in Condition 3, Table 1.j.1.v <i>[Reference :7 DE Admin. Code 1130</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>iii. Monitoring/Testing <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i> The Owner/Operator shall conduct an annual stack test unless the Department approves less frequent testing. The Department reserves the right to require more frequent testing or require installation of CEMS</p> <p>iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1.j.1.iv.</p>	<p><i>Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>
<p>6. Volatile Organic Compounds (VOCs):</p> <p>i. Emission Standard: <i>[Reference: Permit APC-98/0264(A6)]</i> VOC emissions (as methane) shall not exceed 0.17 lb/hr in each SCOT stack and 1.3 TPY combined from both SCOT stacks.</p>	<p>ii. Compliance Method: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i> Compliance with Emission Standards (A) and (B) shall be based on stack testing conducted in accordance with Condition 3, Table 1.j.6.iii.</p> <p>iii. Monitoring/Testing: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i> A. The Owner/Operator shall conduct a stack test at 5 year intervals while processing both refinery acid gas and gasifier acid gas streams in the Claus units. The Owner/Operator shall conduct a Department approved stack test comprising of 3 runs of sufficient duration to evaluate compliance. Stack test results indicating below detection limits because of insufficient "catch" at the end of three 4 hour runs shall be accepted as proof of compliance. The Owner/Operator may petition the Department to decrease the frequency of VOC performance tests based on the results of any performance testing.</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, table 1.j.1.v. "General Conditions" in Condition 3, Table 1.j.1.v <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.j.1.iv.	
7. Hydrogen Sulfide (H ₂ S) and Total reduced Sulfur (TRS) Compounds: i. Emission Standard: <i>[Reference: Permit APC-98/0264(A7)]</i> H ₂ S emissions shall not exceed 1.7 lb/hr in each SCOT stack and 12.7 TPY combined from both SCOT stacks.	ii. Compliance Method: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i> Compliance with the Emission Standard shall be based on stack testing conducted in accordance with Condition 3, Table 1.j.7.iii. iii. Monitoring/Testing: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i> The initial performance test shall be conducted while processing both refinery acid gas and gasifier acid gas streams in the Claus units. The Owner/Operator shall conduct a Department approved stack test comprising of 3 runs of sufficient duration to evaluate compliance. Stack test results indicating below detection limits because of insufficient “catch” at the end of three 4 hour runs shall be accepted as proof of compliance. Upon demonstrating compliance in accordance with this provision, the Owner/Operator shall not be required to conduct additional stack testing to demonstrate compliance with the Emission Standard. However, if the initial stack test performed in accordance with this Condition does not demonstrate compliance with the Emission Standard, then the Owner/Operator shall conduct additional tests on an annual basis, as applicable. The Owner/Operator may at any time petition the Department to discontinue such annual stack tests based upon compliant test results. iv. Recordkeeping:	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.j.1.v. “General Conditions” in Condition 3, Table 1.j.1.v <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> vi Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.j.1.iv.	
<p>8. Sulfuric Acid (H₂SO₄):</p> <p>i. Emission Standard: <i>[Reference: Permit APC-98/0264(A7)]</i> H₂SO₄ emissions shall not exceed 1.6 lb/hr and 12.7 TPY combined from both SCOT stacks.</p>	<p>ii. Compliance Method: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i> Compliance with the Emission Standard shall be based on stack testing conducted in accordance with Condition 3, Table 1.j.8.iii.</p> <p>iii. Monitoring/Testing: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]</i> The initial performance test shall be conducted while processing both refinery acid gas and gasifier acid gas streams in the Claus units. The Owner/Operator shall conduct a Department approved stack test comprising of 3 runs of sufficient duration to evaluate compliance. Stack test results indicating below detection limits because of insufficient “catch” at the end of three 4 hour runs shall be accepted as proof of compliance. Upon demonstrating compliance in accordance with this provision, the Owner/Operator shall not be required to conduct additional stack testing to demonstrate compliance with the Emission Standard. However, if the initial stack test performed in accordance with this Condition does not demonstrate compliance with the Emission Standard, then the Owner/Operator shall conduct additional tests on an annual basis, as applicable. The Owner/Operator may at any time petition the Department to discontinue such annual stack tests based upon compliant test results.</p> <p>iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.j.1.iv.</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.j.1.v. “General Conditions” in Condition 3, Table 1.j.1.v <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>9. Visible Emissions: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. [Reference: 7 DE Admin. Code 1114, Section 2.1, dated 7/17/84].</p>	<p>ii. Compliance Method: Compliance shall be demonstrated by monitoring and testing requirements, and record keeping. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00].</p> <p>iii. Monitoring/Testing: A. The Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation. <u>1</u> If visible emissions are observed, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (B) below. <u>2</u> If no visible emissions are observed, no further action is required. B. If required under paragraph A above, the Owner/Operator shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual observations at fifteen-second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. . [Reference: 7 DE Admin. Code 1120 dated 12/7/88 and 7 DE Admin. Code 1130 Section 6.1.3 dated 12/11/00].</p> <p>iv. Record keeping: [Reference 7 DE Admin. Code 1130 Section 6.1.3.2 dated 12/11/00]. The following records shall be maintained in</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, table 1.j.1.v. “General Conditions” in Condition 3, Table 1.j.1.v [Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p> <p>vi Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	accordance with Condition 3(b): A. Observation records shall be maintained and made available to the Department upon request.	
k. Emission Unit No. 37: Steam Methane Reformer Hydrogen Plant, Heaters 37-H-1 A/B; (Emission points 37-1A and 37-1B)		
1. Conditions applicable to Multiple Pollutants: i. Operational Limitation: A. The heat input to 37-H-1 A/B shall not exceed 439 mmBtu/hr on a 365 day rolling average basis. <i>[Reference: Permit: APC-81/0965]</i> B. Only desulfurized refinery fuel gas (RFG) and/or natural gas may be fired in unit 37-H-1 A/B. C. The hydrogen sulfide (H ₂ S) content in the desulfurized RFG shall not exceed 162 ppmv(d) (0.10 gr/dscf) on a three (3) hour rolling average basis.	ii. Compliance Method: Compliance with the Operational Limitations shall be based on monitoring/testing and recordkeeping requirements. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> iii. Monitoring/Testing: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> A. The Owner/Operator shall monitor the fuel usage by 37-H-1 A/B on an hourly basis. B. The Owner/Operator shall obtain a daily sample of the fuel gas combusted in 37-H-1 A/B and analyze it to determine the daily heat input rate to this unit. C. The Owner/Operator shall monitor H ₂ S concentration in RFG continuously. The monitoring instrument shall be located downstream of all process steps that increase the concentration of H ₂ S in RFG prior to its being combusted in any fuel burning device. The H ₂ S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix “B” and comply with the quality assurance requirements of 40 CFR 60, Appendix “F.” The relative accuracy evaluation shall be conducted using method 11 of 40 CFR 60, Appendix “A.” iv. Recordkeeping: <i>[Reference: 7 DE Admin. Code 1130 Section</i>	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> A. RESERVED B. The Owner/Operator shall submit the H ₂ S quarterly CMS report by January 31, April 30, July 31 and October 31 of each calendar year. The H ₂ S CMS report shall include a report listing all rolling 3 hour periods during which the average concentration of H ₂ S as measured by the H ₂ S CMS exceeds 162 ppmv (dry) or 0.10 grain/dscf, quarterly audit results, data capture for the period and details of out of control periods. The data submitted with the Owner/Operator’s quarterly H ₂ S CMS NSPS report for the facility shall satisfy this reporting requirement. vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p><i>6.1.3.2 dated 12/11/00]</i> The following records shall be maintained in accordance with Condition 3(b):</p> <ul style="list-style-type: none"> A. Daily fuel HHV B. All 3-hour rolling averages of H₂S content in RFG. C. CEMS data, calibration and audit results. D. The type of fuel combusted in 37-H-1 A/B and the fuel usage. 	
<p>2. Particulate Matter:</p> <ul style="list-style-type: none"> i. Emission Standards: PM emissions shall not exceed 0.3 lb/mmBtu heat input, maximum 2-hour average. <i>[Reference: 7 DE Admin. Code 1104 Section 2.1 dated 2/1/81]</i> 	<ul style="list-style-type: none"> ii. Compliance Method: <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> A. Compliance with the Emission Standard shall be based on the fuel type and quality. iii. Monitoring/Testing: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.k.1.iii. iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.k.1.iv. 	<ul style="list-style-type: none"> vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> vii. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>
<p>3. Sulfur dioxide (SO₂):</p> <ul style="list-style-type: none"> i. Operational Limitations: A. No sulfur compounds shall be emitted to the atmosphere during regeneration of the carbon drum absorption system. <i>[Reference: Permit: APC-81/0965-0 dated September 9, 1981]</i> 	<ul style="list-style-type: none"> ii. Compliance Method: <i>[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> A. Compliance with Operational Limitation (A) shall be based on routing all emissions during regeneration of the carbon drum absorption system to the refinery flare recovery system. iii. Monitoring/Testing: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.k.1.iii. iv. Recordkeeping: Comply with “Conditions Applicable to Multiple 	<ul style="list-style-type: none"> v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i> vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	Pollutants” in Condition 3, Table 1.k.1.iv.	
4. Nitrogen Oxides (NO _x): i. Emission Standard: A. NO _x emissions shall not exceed 0.20 lb/mmBtu on a 24 hour rolling average basis. [Reference: 7 DE Admin. Code 1112 Section 3.2.1 dated 11/24/93] B. RESERVED	ii. Compliance Method: Compliance with the Emission Standards shall be determined by CEMS. [Reference: 7 DE Admin. Code 1112 Section 3.2.4.1 dated 11/24/93] iii. Monitoring/Testing: A. The CEMS for NO _x and the diluent must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix “B”. The QA/QC procedures for the NO _x and diluent CEMS shall be demonstrated in accordance with 40 CFR, Part 60, Appendix “F”. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00] iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.k.1.iv.	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] vi. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
5. Volatile Organic Compounds (VOCs): i. Emission Standard: Volatile Organic Compound (VOC) emissions from the CO ₂ and deaerator vents combined shall be reduced by not less than 81% from baseline levels (Figure 2 of application dated February 12, 2003) and shall not exceed a rate defined by 24 tons during the first year and 13 tons during the last year of the six year catalyst replacement cycle. [Reference: 7 DE Admin. Code 1124, Section 50 dated 11/29/94 and Permit: APC-81/0965]	ii. Compliance Method: [Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00] Compliance with the Emission Standard shall be based on the monitoring/testing requirements. iii. Monitoring/Testing: [Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit: APC-81/0965] The Owner/Operator shall conduct a stack test within 60 days of replacement of the LTS catalyst by the KATALCO 83-3X catalyst, at the end of the first year and at two year intervals thereafter. The tests shall be conducted simultaneously on the CO ₂ and deaerator vents using the same Department approved test methodology as was used in determining baseline emissions testing in June 2002. The stack test results	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] vi. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>shall be used to quantify VOC emissions from the CO₂ and deaerator vents using the following equation:</p> $\% \text{ VOC reduction} = 100 [1 - ((\text{CO}_2 \text{ vent rate}) (1 - \text{fraction of CO}_2 \text{ to Air Liquide}) + (\text{Deaerator vent rate}) / \text{Baseline CH}_3\text{OH})]$ <p>where CO₂ and deaerator vent rates are stack test based VOC emission rates</p> <p>iv. Recordkeeping: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2 dated 12/11/00]</i> The following records shall be maintained in accordance with Condition 3(b): A. RESERVED B. Annual quantities of CO₂ produced and exported to <i>Air Liquide</i></p>	
<p>6. Visible Emissions: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. <i>[Reference: 7 DE Admin. Code 1114, Section 2.1, dated 7/17/84].</i></p>	<p>ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3. dated 12/11/00]</i></p> <p>iii. Monitoring/Testing:</p> <p>A. The Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation.</p> <ol style="list-style-type: none"> If visible emissions are observed, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (B) below. If no visible emissions are observed, no 	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>further action is required. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3. dated 12/11/00]</i></p> <p>B. If required under paragraph A, above, the Owner/Operator shall in accordance with Subsection 1.5(c) of Regulation No. 20 conduct visual observations at fifteen-second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. <i>[Reference: 7 DE Admin. Code 1120, Section 1.5.3 dated 12/7/88].</i></p> <p>iv. Recordkeeping: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3. dated 12/11/00]</i></p> <p>A. Observation records shall be maintained and made available to the Department upon request.</p>	
I. [RESERVED]		
m. Emission Unit No. 42: Continuous Catalyst Regenerator (CCR) Reformer, Reformer Charge Heater and Reboiler Heater (Emission points 42-1 and 42-2)		
1. Conditions applicable to Multiple Pollutants: i. Operational Limitations: <i>[Reference: Permits: APC-82/0073 and APC-82/0632 both dated February 8, 1985]</i>	ii. Compliance Method: <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.1.2 dated 12/11/00]</i> Compliance with the operational limitations shall be based on monitoring/testing and recordkeeping	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>A. The heat input to 42-H-1,2,3 shall not exceed 458 mmBtu/hr on a 365 day rolling average basis.</p> <p>B. The heat input to 42-H-7 shall not exceed 80 mmBtu/hr on a 365 day rolling average basis.</p> <p>C. Only desulfurized refinery fuel gas (RFG) and/or natural gas may be fired in 42-H-1,2,3 and 42-H-7.</p> <p>D. The hydrogen sulfide (H₂S) content in the desulfurized RFG shall not exceed 162 ppmvd (0.10 gr/dscf) on a 3 hour rolling average basis</p> <p>E. Unit 42-H-1,2,3 may combust process vent gases from the reactor lift engager (42-D-11) and from the CCR lift engager (42-D-17).</p>	<p>requirements</p> <p>iii. Monitoring/Testing: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. The Owner/Operator shall monitor the fuel usage by 42-H-1,2,3 and 42-H-7 on an hourly basis.</p> <p>B. The Owner/Operator shall obtain a daily sample of the fuel gas combusted in 42-H-1,2,3 and 42-H-7 and analyze it to determine the daily heat input rate to this unit.</p> <p>C. The Owner/Operator shall monitor H₂S concentrations in RFG continuously. The monitoring instrument shall be located downstream of all process steps that increase the concentration of H₂S in RFG prior to its being combusted in any fuel burning device. The H₂S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix “B” and comply with the quality assurance requirements of 40 CFR 60, Appendix “F.” The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix “A.”</p> <p>D. RESERVED</p> <p>iv. Recordkeeping: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2 dated 12/11/00]</i></p> <p>The following records shall be maintained in accordance with Condition 3(b):</p> <p>A. the type of fuel combusted in 42-H-1,2,3 and 42-H-7 and the fuel usage.</p> <p>B. All 3-hour rolling averages of H₂S content in RFG.</p> <p>C. CEMS data calibration and audit results.</p>	<p>the following: <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>A. RESERVED</p> <p>B. RESERVED</p> <p>C. The Owner/Operator shall submit the H₂S quarterly CMS report by January 31, April 30, July 31 and October 31 of each calendar year. The H₂S report shall include a report listing all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S CEMS exceeds 162 ppmv(d) (0.10 gr/dsef), quarterly results, data capture for the period and details out of control periods. The data submitted with the Owner/Operator’s quarterly H₂S CMS NSPS report for the facility shall satisfy this reporting requirement.</p> <p>vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>2. Particulate Matter:</p> <p>i. Emission Standards for 42-H-1,2,3 and 42-H-7: PM emissions shall not exceed 0.3 lb/mmBtu heat input, maximum 2-hour average. <i>[Reference: 7 DE Admin. Code 110 4 Section 2.1 dated 2/1/83].</i></p>	<p>ii. Compliance Method: <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.1.2 dated 12/11/00]</i> A. Compliance with the Emission Standard shall be based on the fuel type and quality.</p> <p>iii. Monitoring/Testing: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.m.1.iii</p> <p>iv. Recordkeeping: Comply with “Conditions Applicable to multiple Pollutants” in Condition 3, Table 1.m.iv.</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].</i></p>
<p>3. Nitrogen Oxides (NO_x):</p> <p>i. Emission Standard: For Units 42-H-1,2,3: A. NO_x emissions shall not exceed 0.20 lb/mmBtu on a 24 hour rolling average basis. <i>[Reference: 7 DE Admin. Code 1112, Section 3.2.1 dated 11/24/93].</i> B. RESERVED</p>	<p>ii. Compliance Method: A. Compliance with the Emission Standards (A) and (B) shall be determined by CEMS. <i>[Reference: 7 DE Admin. Code 1112 Section 3.2.4.1 dated 11/24/93].</i></p> <p>iii. Monitoring/Testing: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i> The CEMS for NO_x and the diluent must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix “B”. The QA/QC procedures for the NO_x and diluent CEMS shall be demonstrated in accordance with 40 CFR, Part 60, Appendix “F”.</p> <p>iv. Recordkeeping: Comply with “Conditions Applicable to Multiple Pollutants” in Condition 3, Table 1.m.1.iv.</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>
<p>4. Visible Emissions: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or</p>	<p>ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. <i>[Reference 7 DE Admin. Code 1114, Section 2.1, dated 7/17/84].</i></p>	<p>requirements, and record keeping. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.2 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing:</p> <p>A. The Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation.</p> <ol style="list-style-type: none"> 1. If visible emissions are observed, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (B) below. 2. If no visible emissions are observed, no further action is required. <p><i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3 dated 12/11/00]</i></p> <p>B. If required under paragraph A, above, the Owner/Operator shall, in accordance with Subsection 1.5(c) of Regulation No. 20 conduct visual observations at fifteen-second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 and 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. <i>[Reference 7 DE Admin. Code 1120, Section 1.5.3 dated 12/7/88].</i></p> <p>iv. Record keeping: <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p>	<p><i>6.2.1 dated 12/11/00]</i></p> <p>vi. Certification:</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	A. Observation records shall be maintained and made available to the Department upon request.	
<p>5. Hazardous air pollutants: <i>[Reference: Permit APC-82/0073]</i></p> <p>i. Emission standards:</p> <p>A. The wet gas scrubber shall reduce uncontrolled emissions of HCl by 97% by weight at all times.</p> <p>B. Total HCl emissions from the CCR Reformer unit shall not exceed 1.6 tons on a 12-month rolling basis.</p> <p>C. The wet gas scrubber shall reduce uncontrolled emissions of chlorine by 95% by weight at all times.</p> <p>D. Total chlorine emissions shall not exceed 0.80 tons on a 12-month rolling basis.</p> <p>ii. Operational limitations:</p> <p>A. The Owner/Operator shall operate the wet gas scrubber at all times according to the procedures of the operation, maintenance and monitoring (OMM) plan, which shall include the information specified in 40 CFR Part 63.1574(f).</p> <p>B. The minimum hourly average pH of the scrubbing liquid exiting the scrubber shall be 6.56.</p> <p>C. The minimum daily average liquid-to-gas ratio shall be 0.12.</p> <p>D. During periods of startup, shutdown, and malfunction, the Owner/Operator</p>	<p>iii. Compliance method: <i>[Reference: Permit APC-82/0073]</i> Compliance with the Emission Standards and Operational Limitations shall be based on Monitoring/Testing and Recordkeeping requirements.</p> <p>iv. Monitoring/Testing: <i>[Reference: Permit APC-82/0073]</i></p> <p>A. To demonstrate compliance with the Operational Limitations, the Owner/Operator shall operate a continuous monitoring system to measure the following parameters, in accordance with the requirements of 40 CFR Part 63, Subpart UUU, Table 41.</p> <ol style="list-style-type: none"> 1. The pH of the scrubbing liquid exiting the scrubber; 2. The gas flow rate to the scrubber; 3. The total scrubbing liquid flow rate; 4. The differential pressure across the scrubber. <p>B. To demonstrate compliance with Operational Limitations (B) and (C) during coke burn-off and catalyst rejuvenation, the Owner/Operator shall:</p> <ol style="list-style-type: none"> 1. Collect the hourly and daily average pH monitoring data according to §63.1572; 2. Maintain the daily average pH above the operating limit established during the performance test; 3. Collect the hourly average gas flow rate and scrubbing liquid flow rate monitoring data; 	<p>vi. Reporting:</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00 and Permit APC-82/0073]</i></p> <p>A. The Owner/Operator shall submit semiannual reports by January 31 and July 31 of each calendar year for the preceding semiannual period in accordance with the requirements of §63.1575(c). The report must include each instance in which an emission limit, operating standard or work practice standard is not met, or if no deviations occurred the report must contain a statement that there were no deviations during the reporting period and that no continuous monitoring system was inoperative, out of control, repaired or adjusted. An electronic copy of the report shall be sent to the Department's engineer for the refinery.</p> <p>vii. Certification:</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>shall operate the CCR Reformer unit and wet gas scrubber in accordance with a written startup, shutdown, malfunction plan (SSMP) pursuant to 40 CFR Part 63.6(e)(3).</p>	<p>4. Determine and record the hourly and daily average liquid-to-gas ratio;</p> <p>5. Maintain the daily average liquid-to-gas ratio above the limit established during the performance test; and</p> <p>6. Comply with the OMM plan.</p> <p>v. Recordkeeping: <i>[Reference: Permit APC-82/0073]</i> The following records shall be maintained in accordance with Condition 3(b):</p> <p>A. A copy of each notification and report submitted pursuant to or supporting any initial Notification of Compliance Status pursuant to §63.10(b)(2)(xiv);</p> <p>B. Records in §63.6(e)(1)(iii) through (v) related to startup, shutdown and malfunction; and</p> <p>C. Records of performance tests required in §63.10(b)(2)(vii).</p>	
n. <u>Emission Unit No. 45: Refinery Utilities, North & South Flares and Gas Recovery System; Spent Caustic Stripper (Emission points 45-1 and 45-2):</u>		
<p>1. Flares</p> <p>i. Operational Limitations:</p> <p>A. RESERVED</p> <p>B. The flare shall be operated at all times when emissions may be vented to it. <i>[Reference: 40 CFR 60, Subpart A, §60.18(e), dated 7/1/06]</i></p> <p>C. At least one flare recovery compressor shall be operational at all times, except during periods of</p>	<p>ii. Compliance Method</p> <p>A. RESERVED</p> <p>B. Compliance with the Operational Limitations shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this condition. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing: <i>[Reference: 7 DE Admin. Code</i></p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vii. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>malfunction as defined in Condition 2(e)(5).</p> <p>D. The flares shall be designed for and operated with no visible emissions as determined by methods specified in paragraph (f) of 40 CFR 60.18 except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. <i>[Reference Regulation 40 CFR 60.18(c)(1) dated 7/1/06].</i></p> <p>E. Except as provided in D above, operation of the flare shall be smokeless. <i>[Reference: Permit APC-81/0830]</i></p> <p>F. The flare shall be operated with a flame present at all times. <i>[Reference: 40 CFR 60.18(c)(2), dated 7/1/06]</i></p> <p>G. The flare flame detection device shall be in proper operation whenever the flare is in operation. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p>	<p><i>1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. The Owner/Operator shall continuously monitor the gas flow to the flares (i.e., the gas not recovered by the recovery compressors).</p> <p>B. A gas sample shall be collected from the flare header weekly and analyzed by a gas chromatograph.</p> <p>C. Delaware reportable quantities of pollutants in the flare emissions shall be calculated based on the flow and concentrations measured from the weekly samples unless more representative process operating data can be used to provide concentrations that are different from those obtained from the daily analysis.</p> <p>D. Visible emissions from the flare shall be monitored as follows:</p> <ol style="list-style-type: none"> 1. The Owner/Operator shall monitor the opacity from both flare stacks at all times using a video camera. The monitor for the camera shall be in plain sight in the control room at all times. 2. The Owner/Operator shall conduct daily qualitative observations of the flare using Method 22 to evaluate the presence or absence of smoke and/or visible air contaminants during a continuous fifteen (15) minute period while the flare is in 	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>operation.</p> <ol style="list-style-type: none"> 3. If visible emissions are detected during any daily qualitative survey of visible emissions or is observed at any other time, the Owner/Operator shall take corrective action and/or conduct a visible emission test using 40 CFR 60, Appendix A, Reference Method 22, dated 7/11/06. The observation period is 2 hours and shall be done according to Method 22. <i>[Reference: 40 CFR 60, Subpart A, §60.18(f)(1), dated 7/1/06]</i> 4. The presence of a flare pilot flame shall be monitored at all times using a thermocouple or any other equivalent device to detect the presence of a flame. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and 40 CFR 60.18(f)(2), dated 7/1/06]</i> <p>iv. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: <i>[Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]</i></p> <ol style="list-style-type: none"> A. Date, time and duration of the flaring event. B. Quantity of material flared. C. Calculations showing the amount of reportable quantity releases. D. Results of weekly samples. 	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>E. Daily visible emission record.</p> <p>F. Method 22 observations.</p> <p>G. Records indicating the presence of a flame during flare operation.</p> <p>H. Periods of time when the camera monitoring equipment is not operational.</p>	
<p>2. Spent Caustic Stripper:</p> <p>i. Emissions Standard: <i>[Reference: Permit; APC-95/0381]</i></p> <p>A. There shall be no direct air contaminant emissions to the atmosphere from this unit.</p> <p>B. The sulfide concentration in the spent caustic shall not exceed 600 ppm (wt) and a rolling average of 200 ppm (wt) calculated on the last 30 days of actual operation. For the purpose of this condition, a day is defined as a calendar day.</p> <p>ii. Operational Limitation: No spent caustic streams from any of the following units shall enter any part of the WWTP until they are treated by the spent caustic stripper in accordance with Emission Standard B. <i>[Reference: Permit; APC-95/0381]</i></p> <ol style="list-style-type: none"> 1. Fluid Catalytic Cracking Unit 2. Crude Unit 3. Alkylation Plant 4. Polymerization Plant 5. Ether Unit 	<p>iii. Compliance Method:). <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>A. Compliance with Emission Standard (A) is based on routing the stripper overhead gases as feed to the refinery SRA only.</p> <p>B. Compliance with Emission Standard (B) is based on the monitoring/testing requirements.</p> <p>C. Compliance with the Operational Limitation is based on the Recordkeeping requirements.</p> <p>iv. Monitoring/Testing: The treated spent caustic shall be sampled and tested for sulfide concentration daily. Testing shall be conducted utilizing the CHEMetrics VACUettes sulfide test kit. An alternative test method may be substituted if approved by the Department. <i>[Reference: Permit; APC-95/0381]</i></p> <p>v. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit: APC-95/0381]</i></p> <ol style="list-style-type: none"> A. Log of daily sampling results B. Log indicating all periods when the spent caustic discharge to the WWTP exceeds Emission Standard (B). 	<p>vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vii. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
oa. Facility Wide Requirement for Fugitive VOC Emissions, i.e., Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries (40 CFR 60, Subpart GGG); National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries (40 CFR Part 63 Subpart CC) Standards of Performance for Equipment Leaks of VOC in SOCM (40 CFR 60, Subpart VV), and Regulation No. 24, Section 29, Leaks from Petroleum Refinery Equipment		
<p>1. Pumps in Light Liquids Service.</p> <p>i. Operational Standards</p> <p>A. Each pump in light liquid service shall be monitored by the methods and procedures in accordance with (iii)(A) of this section. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, subpart VV, §60.482-2(a) dated 7/1/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>B. Leak Repair</p> <p><u>1.</u> When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 8 of this unit. <i>[Reference: 7 DE Admin. Code 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(c)(1) dated 7/1/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i></p> <p><u>2.</u> A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. <i>[Reference: 7 DE Admin. Code 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(c)(2) dated 7/1/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i></p> <p>C. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (A) of this section, provided the following requirements are met:</p> <p><u>1.</u> Each dual mechanical seal system is— <u>a.</u> Operated with the barrier fluid at a</p>	<p>ii. Compliance Methods Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. <i>[Reference 7 DE Admin. Code 1130 Section 6.1.3 dated 11/15/93]</i></p> <p>iii. Monitoring/Testing</p> <p>A. Periodic Monitoring</p> <p><u>1.</u> Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60, Subpart VV, §60.485(b), dated 7/1/00, except as given in paragraphs (i)(C), (i)(D), and (i)(E) of this section.</p> <p><u>2.</u> Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(a), dated 7/1/00]</i></p> <p>B. Detection of Leaks</p> <p><u>1.</u> If an instrument reading of 10,000 ppm or greater is measured, a leak is detected for existing pumps as defined in 40 CFR 63.640. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected for new pumps as defined in 40 CFR 63.640. <i>[Reference: 7 DE Admin. Code 1124, Section 28, dated</i></p>	<p>v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>A. RESERVED.</p> <p>B. Other reporting requirements are covered under Section 13 of this unit.</p> <p>vi. Compliance Certification That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>pressure that is at all times greater than the pump stuffing box pressure; or</p> <p><u>b.</u> Equipment with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of Section 9 of this unit; or,</p> <p><u>c.</u> Equipped with a system that purges the barrier fluid into process stream with zero VOC emissions to the atmosphere.</p> <p><u>2.</u> The barrier fluid system is in heavy liquid service or is not in VOC service.</p> <p><u>3.</u> Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.</p> <p><u>4.</u> Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.</p> <p><u>5.</u> <u>a.</u> Each sensor as described in paragraph (3) of this section is checked daily or is equipped with an audible alarm, and</p> <p><u>b.</u> The Owner/Operator determines, based on design considerations and operation experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.</p> <p><u>6.</u> <u>a.</u> If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the</p>	<p><i>11/29/94 and 40 CFR 60, Subpart VV, §60.482-2 dated 7/1/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i></p> <p><u>2.</u> If there are indications of liquids dripping from the pump seal, a leak is detected. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(b), dated 7/1/00]</i></p> <p>iv. Recordkeeping <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p> <p>The following records shall be maintained in accordance with Condition 3(b):</p> <p>VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service.</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>seal system, the barrier fluid system, or both based on the criterion determined in paragraph (C)(5)(b), a leak is detected.</p> <p><u>b.</u> When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 9 of this unit.</p> <p><u>c.</u> A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.</p> <p><i>[Reference: 7 DE Admin. Code 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(d), dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>D. Any pump that is designed for no detectable emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (i)(A), (i)(B), (i)(C), and (iii) of this section if the pump:</p> <p><u>1.</u> Has no externally actuated shaft penetrating the pump housing.</p> <p><u>2.</u> Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in 40 CFR 60, Subpart VV, §60.485(c), dated 7/1/00, and</p> <p><u>3.</u> Is tested for compliance with</p>		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>paragraph (D)(2) initially upon designation, annually, and at other times required by the Department. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(e) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>E. If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system, it is exempt from this section. <i>[Reference: 7 DE Admin. Code 112, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(f) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>F. Any pump that is designated as an unsafe-to-monitor pump is exempt from the Monitoring/Testing requirements of this section if:</p> <ol style="list-style-type: none"> 1. The Owner/Operator demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to immediate danger as a consequence if complying with part (iii)(A) of this section; and 2. The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule 		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>otherwise applicable, and repair of the equipment according to the procedures in part (iii)(B) of this section if a leak is detected. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94; 40 CFR 60 Subpart VV §60.482-2(g) dated 12/14/2000 and §63.648(a)(1) dated 8/18/98].</i></p>		
<p>2. Compressors. i. Operational Standards A. Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 CFR 60.482-91(c) and Operational Standards (E) and (F) of this section. <i>[Reference: 7 DE Admin. Code 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(a) dated 7/1/00 and 40 CFR 63.468(a)(1) dated 8/18/98]</i> B. Each compressor seal system as required in paragraph (A) shall be: <u>1.</u> Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or <u>2.</u> Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of Section 9 of this unit; or 3. Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV,</i></p>	<p>ii. Compliance Method <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3 dated 12/11/00]</i></p> <p>Compliance with the Operational Standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section.</p> <p>iii. Monitoring/Testing A. Each barrier fluid system as described in paragraph (i)(A) of this unit shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. <i>[Reference: : 7 DE Admin. Code 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(d), dated 7/1/00]</i> B. <u>1.</u> Each sensor as required in paragraph (A) shall be checked daily or shall be equipped with an audible alarm. <u>2.</u> The Owner/Operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. <i>[Reference: Regulation No.2 4, Section28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(e), dated 7/1/00]</i> C. If the sensor indicates failure of the seal system,</p>	<p>v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>A. RESERVED B. Other reporting requirements are covered under Section 13 of this unit.</p> <p>vi. Certification That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p> <i>§60.482-3(b) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98]</i> C. The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. <i>[Reference: 7 DE Admin. Code 1124, Section29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(c) dated 7/1/00 and 40 CFR 63.468(a)(1) dated 8/18/98]</i> D. <u>1.</u> When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 8 of this unit. <u>2.</u> A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. <i>[Reference: 7 DE Admin. Code 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(g) dated 7/1/00 and 40 CFR 63.468(a)(1) dated 8/18/98].</i> E. A compressor is exempt from the requirements of Operational Standards (A) and (B) of this section, if it is equipped with a closed vent system to capture and transport any leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of Section 9 of this unit. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(h) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98]</i> F. Any compressor that is designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of this section if the </p>	<p> the barrier system, or both based on the criterion determined under paragraph (B)(2), a leak is detected. <i>[Reference: : 7 DE Admin. Code 1124, Section28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(f), dated 7/1/00]</i> iv. Recordkeeping None in addition to the requirements of Section 12 of this unit. </p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>compressor:</p> <p><u>1.</u> Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in 40 CFR 60, Subpart VV, §60.485(c), dated 7/1/00.</p> <p><u>2.</u> Is tested for compliance with Operational Standard (F)(1) initially upon designation, annually, and at other times requested by the Department. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(i) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>G. Any existing reciprocating compressor in a process unit which becomes an affected facility is exempt from this section provided the Owner/Operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of this section. <i>[Reference: 40 CFR 60, Subpart VV, §60.482-3(j) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>H. Compressors in hydrogen service are exempt from the requirements of this section if the Owner/Operator demonstrates that a compressor is in hydrogen service. <i>[Reference: 40 CFR 60, Subpart GGG, 60.593(b)(1) dated 7/1/2000].</i></p> <p>I. Each compressor is presumed to be in hydrogen service unless the Owner/Operator demonstrates that it is not in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be</p>		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
determined that the percent hydrogen concentration can be reasonably expected to exceed 50% by volume. <i>[Reference: 40 CFR 60.593(b)(1) & (2) dated 10/17/2000 and 40 CFR 63.648(g) dated 8/18/98].</i>		
<p>3. Pressure Relief Devices in Gas/vapor Service.</p> <p>i. Operational Standards</p> <p>A. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm, above background, as determined by the methods specified in 40 CFR 60, Subpart VV, §60.485(c), dated 7/1/00. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-4(a) dated 7/1/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>B. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in Section 9 of this unit is exempted from the requirements of paragraphs (i)(A) and (iii) of this section <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-4(c) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>C. 1. Any pressure relief device that equipped with a rupture disk</p>	<p>ii. Compliance Method <i>[Reference: 7 DE Admin. Code 1130, Section 6.1.3 dated 11/15/93]</i> Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. .</p> <p>iii. Monitoring/Testing</p> <p>A. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in Section 8 of this unit. <i>[Reference: 7 DE Admin. Code 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-4(b)(1), dated 7/1/00]</i></p> <p>B. No later than 5 calendar days after a pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60, Subpart VV, §60.485©, dated 7/1/00. <i>[Reference: 7 DE Admin. Code 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-4(b)(2), dated 7/1/00]</i></p> <p>iv. Recordkeeping</p>	<p>v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>A. RESERVED B. Other reporting requirements are covered under Section 13 of this unit.</p> <p>vi. Certification That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>upstream of the pressure relief device is exempt from the requirements in (i)(C)(2) below.</p> <p>2. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §60.482-9. <i>[Reference 40 CFR 60, Subpart VV, §60.482-4(d) dated 12/14/2000].</i></p>	<p>None in addition to the requirements of Section 12 of this unit.</p>	
<p>4. Sampling Connection Systems.</p> <p>i. Operational Standards.</p> <p>A. Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in the provisions for determining an equivalent means of limitation. Gasses displaced during filling of the sample container are not required to be collected or captured. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-5(a) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98.]</i></p> <p>B. Each closed-purge, closed-loop, or closed vent system as required in paragraph (A) of this section shall comply with the following requirements:</p> <ol style="list-style-type: none"> 1. Return the purged process fluid directly to the process line; or 2. Collect and recycle the purged process fluid to a process; or 	<p>ii. Compliance Method <i>[Reference: 7 DE Admin. Code 1130, Section 6.1.3 dated 11/15/93]</i> Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. <i>[Reference: 7 DE Admin. Code 1130, Section 6.1.3 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing None.</p> <p>iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.</p>	<p>v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>A. RESERVED</p> <p>B. Other reporting requirements are covered under Section 13 of this unit.</p> <p>vi. Certification That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>3. Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of Section 9 of this unit.</p> <p>4. Collect, store, and transport the purged process fluid to any of the following systems:</p> <p>1. A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to, and operate in compliance with the provision of 40 CFR part 63, subpart G, application to Group 1 wastewater streams;</p> <p>b. A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or</p> <p>3. A facility permitted, licensed, or registered by the State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261. <i>[Reference: 7 DE Admin. Code 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-5(b) dated 7/1/00 and 40 CFR 63.468(a)(1) dated 8/18/98].</i></p> <p>3. In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (A) and (B) of this section. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-5(c) dated</i></p>		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<i>12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].</i>		
<p>5. Open-ended Valves or Lines.</p> <p>i. Operational Standards</p> <p>A. <u>1.</u> Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.</p> <p><u>2.</u> The cap, blind flange, plug or second valve shall seal the open end at all times except during operations requiring process fluid flow throughout the open-ended valve or line.</p> <p><i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>B. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.</p> <p><i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i></p> <p>C. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (A) at all other times. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i></p>	<p>ii. Compliance Method: Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. <i>[Reference: 7 DE Admin. Code 1130, Section 6.1.3 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing: None</p> <p>iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.</p>	<p>v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>A. RESERVED</p> <p>B. Other reporting requirements are covered under Section 13 of this unit.</p> <p>vi. Compliance Certification That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>D. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (i)(A), (B), and (C) of this section. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i></p> <p>E. Open-ended valves or lines containing materials which would automatically polymerize or would present an explosion, serious over pressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (i)(A) through (C) of this section are exempt from the requirements of paragraphs (i)(A) through (C) of this section. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i></p>		
<p>6. Valves in Gas/vapor Service and in Light Liquid Service.</p> <p>i. Operational Standards</p> <p>A. Each valve shall be monitored as given in section (iii) of this unit and shall comply with Operational Standards (B) through (D), except as provided in Operational Standards (E) and (F) and Sections 10 and 11 of this unit. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i></p> <p>B. <u>1.</u> When a leak is detected, it shall be repaired as soon as practicable, but</p>	<p>ii. Compliance Method</p> <p>Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. <i>[Reference: 7 DE Admin. Code 1130, Section 6.1.3 dated 12/11/00].</i></p> <p>iii. Monitoring/Testing</p> <p>A. Each valve shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60 Subpart VV, §60.485(b), dated 7/1/00. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00]</i></p> <p>B. If an instrument reading of 10,000 ppm or greater</p>	<p>v. Reporting</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>A. RESERVED</p> <p>B. Other reporting requirements are covered under Section 13 of this unit.</p> <p>vi. Certification</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>no later than 15 calendar days after the leak is detected, except as provided in Section 8 of this unit.</p> <p><u>2.</u> A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</p> <p>3. First attempts at repair include, but are not limited to, the following best practices where practicable:</p> <p><u>1.</u> Tightening of bonnet bolts;</p> <p><u>2.</u> Replacement of bonnet bolts;</p> <p><u>3.</u> Tightening of packing gland nuts;</p> <p><u>4.</u> Injection of lubricant into lubricated packing. [Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</p> <p>D. Any valve that is designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Operational Standard (A) of this section if the valve:</p> <p><u>1.</u> Has no external actuating mechanism in contact with the process fluid,</p> <p><u>2.</u> Is operated with emissions less than 500 ppm above background as determined by the method specified in 40 CFR 60, Subpart VV, § 60.485(c), dated 7/1/00,</p>	<p>is measured, a leak is detected for existing valves as defined in 40 CFR 63.640. If an instrument reading of 500 ppm or greater is measured, a leak is detected for new valves as defined in 40 CFR 63.640. [Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94, 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648]</p> <p>C. <u>1.</u> Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.</p> <p><u>2.</u> If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00]</p> <p>iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>and</p> <p><u>3.</u> Is tested for compliance with paragraph (D)(<u>2</u>) initially upon designation, annually, and at other times requested by the Department.</p> <p><i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i></p> <p>E. Any valve that is designated as an unsafe-to-monitor valve is exempt from the requirements of Operational Standard (A) if:</p> <p><u>1.</u> The Owner/Operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (A), and</p> <p><u>2.</u> The Owner/Operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. <i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i></p> <p>F. Any valve that is designated as a difficult-to-monitor valve is exempt from the requirements of Operational Standard (A) if:</p> <p><u>1.</u> The Owner/Operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2</p>		

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>meters above a support surface.</p> <p>2. The Owner/Operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and</p> <p>3. The Owner/Operator follows a written plan that requires monitoring of the valve at least once per calendar year.</p> <p><i>[Reference: 7 DE Admin. Code 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i></p>		
<p>7. Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges Connectors.</p> <p>i. Operational Standards</p> <p>A. If evidence of a potential leak is found by visual, audible, olfactory, or other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the Owner/Operator shall follow either one of the monitoring requirements in part (iii)(A) of this section. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a) dated 12/14/2000].</i></p>	<p>ii. Compliance Method</p> <p>Compliance with operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. <i>[Reference: 7 DE Admin. Code 1130, Section 6.1.3 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing</p> <p>A. 1. The Owner/Operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and comply with the requirements of paragraphs (B) through (D) below <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(1), dated 12/14/00].</i></p> <p>2. The Owner/Operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00].</i></p> <p>B. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00].</i></p>	<p>vi. Reporting</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>A. RESERVED</p> <p>B. Other reporting requirements are covered under Section 13 of this unit.</p> <p>vi. Certification</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>^{12/14/00].}</p> <p>C. <u>1.</u> When a leak is detected it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9.</p> <p><u>2.</u> The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.</p> <p><i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>iv. First attempts at repair include, but are not limited to the best practices described under Section 6(i)(C) of this unit. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>v. Recordkeeping None in addition to the requirement of Section 12 of this unit.</p>	
<p>8. Delay of Repair</p> <p>i. Operational Standard</p> <p>A. Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-9(a), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>B. Delay of repair of equipment will be</p>	<p>ii. Compliance Method Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. <i>[Reference: 7 DE Admin. Code 1130, Section 6.1.3 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing None</p> <p>iv. Recordkeeping None in addition to the requirements of Section 12 of</p>	<p>v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>A. RESERVED</p> <p>B. Other reporting requirements are covered under Section 13 of this unit.</p> <p>vi. Certification That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>allowed for equipment which is isolated from the process and which does not remain in VOC service. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>C. Delay of repair for valves will be allowed if:</p> <ol style="list-style-type: none"> <u>1.</u> The Owner/Operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and <u>2.</u> When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section 9 of this unit. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i> <p>D. Delay of repair for pumps will be allowed if:</p> <ol style="list-style-type: none"> <u>1.</u> Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and <u>2.</u> Repair is completed as soon as practicable, but not later than 6 months after the leak was detected. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i> <p>E. Delay or repair beyond a process unit</p>	<p>this unit.</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown. [Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-9(e)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</p>		
<p>9. Closed Vent Systems and Control Devices.</p> <p>i. Operational Standards</p> <p>A. Vapor recovery systems (for example, condensers and adsorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater or to an exit concentration of 20 ppmv, whichever is less stringent. [Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(b) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</p> <p>B. Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater or to an exit concentration of 20 ppmv dry corrected to 3% oxygen, whichever is less stringent, or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816°C. [Reference: 7 DE Admin. Code 1124, Section 29</p>	<p>ii. Compliance Method</p> <p>Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. [Reference: 7 DE Admin. Code 1130, Section 6.1.3 dated 12/11/00]</p> <p>iii. Monitoring/Testing</p> <p>A. Control devices used to comply with the provisions of this unit shall be monitored to ensure that they are operated and maintained in conformance with their designs. [Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(e) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</p> <p>B. Except as provided in paragraphs (C) through (E) below, each closed vent system shall be inspected according to the procedures:</p> <p><u>1.</u> If the vapor collection system or closed vent system is constructed of hard-piping, the Owner/Operator shall comply with the requirements specified in paragraphs</p>	<p>v. Reporting</p> <p>That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p> <p>A. RESERVED</p> <p>B. Other reporting requirements are covered under Section 13 of this unit.</p> <p>vi. Certification</p> <p>That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p><i>dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(c) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>C. Flares used to comply with this subpart shall comply with the requirements of 40 CFR 60, Subpart A, §60.18, dated 7/1/00 and Unit 1 of this Table. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(d) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>D. Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (E) of this section.</p> <p>1. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.</p> <p>2. Repair shall be completed no later than 15 calendar days after the leak is detected.</p> <p><i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(g) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i></p> <p>E. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the Owner/Operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.</p>	<p>(B)(1)(a) and (B)(1)(b) of this section:</p> <p>i. Conduct an initial inspection according to the procedures 40 CFR 60, Subpart VV, §60.485(b), dated 7/1/00; and</p> <p>ii. Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.</p> <p>2. If the vapor collection system or clod vent system is constructed of ductwork, the Owner/Operator shall:</p> <p>i. Conduct an initial inspection according to the procedures in 40 CFR 60, Subpart VV, §60.485(b), dated 7/1/00; and</p> <p>ii. Conduct annual inspections according to the procedures in Sec. 60.485(b).</p> <p><i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(f), dated 12/14/00]</i></p> <p>C. If a vapor collection system or clod vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (B)(1)(a) and (B)(2) of this section.</p> <p><i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482108(i), dated 12/14/00].</i></p> <p>D. Any parts of the closed vent system that are designated as unsafe to inspect are exempt from the inspection requirements of paragraphs (B)(1)(a) and (B)(2) of this section if they comply with the requirements specified in paragraphs (D)(1)(a) and (D)(2) of this section:</p> <p>1. The Owner/Operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p> <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(h) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i> F. Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(m) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].</i> </p>	<p> (B)(1)(a) or (B)(2) of this section; and <u>2.</u> The Owner/Operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(j) dated 12/14/00].</i> E. Any parts of the closed vent system that are designated as difficult to inspect are exempt from the inspection requirements of paragraphs (B)(1)(a) or (B)(2) of this section if they comply with the requirements specified in paragraphs (E)(1) through (E)(3) of this section: <u>1.</u> The Owner/Operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and <u>2.</u> The owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and <u>3.</u> The Owner/Operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(k) dated 12/14/00].</i> iv. Recordkeeping In addition to the records required by Section 12 of </p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>this unit, the Owner/Operator shall record the following and keep it for at least five years.</p> <ul style="list-style-type: none"> A. Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. B. Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. C. For each inspection conducted in accordance with §60.485(b) dated 10/17/2000 during which a leak is detected, a record of the information specified in 40 CFR 60, Subpart VV, §60.486(c), dated 12/14/00. D. For each inspection during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. E. For each visual inspection conducted in accordance with paragraph (B)(1)(b) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. <p><i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(l) dated 12/14/00 and 40 CFR 63.648(a)(l) dated 8/18/98].</i></p>	
10. Alternative Standards for Valves – Allowable Percentage of Valves Leaking.	ii. Compliance Method Compliance with the operational standards of this	v. Reporting That required by Conditions 2(a), 2(b)(9),

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>i. Operational Standards</p> <p>A. The Owner/Operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i></p> <p>B. Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(d) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i></p>	<p>condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. <i>[Reference: 7 DE Admin. Code 1130, Section 6.1.3 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing</p> <p>A. A performance test as specified in paragraph (C) of this section shall be conducted initially upon designation, annually, and at other times requested by the Department. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(b)(2) dated 12/14/00]</i></p> <p>B. If a valve leak is detected, it shall be repaired in accordance with Section 6(B) and (C) of this unit. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(b)(3) dated 12/14/00].</i></p> <p>C. Performance tests shall be conducted in the following manner:</p> <ol style="list-style-type: none"> <u>1.</u> All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in 40 CFR 60, Subpart VV, §60.485(b), dated 7/1/00. <u>2.</u> If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. <u>3.</u> The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(c) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]</i> <p>iv. Recordkeeping</p>	<p>2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>A. The Owner/Operator must notify the Department that the Owner/Operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard as specified in section 13(c)(D). <i>[Reference: : 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1 dated 12/14/00]</i></p> <p>vi. Certification</p> <p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	None in addition to the requirements of Section 12 of this unit.	
<p>11. Alternative Standards for Valves-Skip Period Leak Detection and Repair.</p> <p>i. The Owner/Operator may elect to comply with one of the alternative monitoring frequencies specified in paragraphs (iii)(B) and (iii)(C) of this section. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-2(a) dated 12/14/00].</i></p>	<p>ii. Compliance Method Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. <i>[Reference: 7 DE Admin. Code 1130, Section 6.1.3 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing</p> <p>A. A Owner/Operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in Section 6 of this unit. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-2(b) dated 12/14/00].</i></p> <p>B. After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-2(b)(2), dated 12/14/00].</i></p> <p>C. After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.483-2(b)(3), dated 12/14/00]</i></p> <p>D. If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in Section 6 of this unit</p>	<p>v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>A. A Owner/Operator must notify the Department before implementing one of the alternative work practices as specified in section 13(v)(D) of this unit. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-2(a) dated 12/14/00].</i></p> <p>B. Other reporting requirements as specified in Section 13 of this unit.</p> <p>vi. Certification That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>but can again elect to use this section. [Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.483-2(b)(4), dated 12/14/00]</p> <p>E. The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section. [Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.483-2(b)(5), dated 12/14/00]</p> <p>iv. Recordkeeping</p> <p>A. The Owner/Operator must keep a record of the percent of valves found leaking during each leak detection period. [Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.483-2(b)(6), dated 12/14/00]</p> <p>B. The Owner/Operator shall keep all the other records listed in Section 12 of this unit.</p>	
<p>12. Recordkeeping requirements:</p> <p>1. The Owner/Operator shall comply with the recordkeeping requirements of this section. [Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(a), dated 12/14/00]</p>	<p>ii. Compliance Method Compliance with this section will be accomplished by maintaining the records required by section (iv).</p> <p>iii. Monitoring/Testing None in addition to the requirements of the other sections of this unit.</p> <p>iv. Recordkeeping</p> <p>i. When each leak is detected, as specified in Sections 1, 2, 6, 7, and 11 of this unit, the following requirements apply:</p> <p>i. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to</p>	<p>v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p> <p>vi. Compliance Certification That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>the leaking equipment.</p> <p><u>ii.</u> The identification on a valve may be removed after it has been monitored for 2 successive months and no leak has been detected during those 2 months.</p> <p><u>iii.</u> The identification on equipment except for a valve, may be removed after it has been repaired.</p> <p><i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(b), dated 12/14/00]</i></p> <p><u>ii.</u> When each leak is detected, as specified in Sections 1, 2, 6, 7 and 11 of this unit, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location:</p> <p><u>i.</u> The instrument and operator identification numbers and the equipment identification number.</p> <p><u>ii.</u> The date the leak was detected and the dates of each attempt to repair the leak.</p> <p><u>iii.</u> Repair methods applied in each attempt to repair the leak.</p> <p><u>iv.</u> “Above 10,000” if the maximum instrument reading measured by the methods specified in 40 CFR 60, Subpart VV, §60.485(a), dated 7/1/00 after each repair attempt is equal to or greater than 10,000 ppm.</p> <p><u>v.</u> “Repair delayed” and the reasons for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.</p> <p><u>vi.</u> The signature of the Owner/Operator (or designate) whose decision it was that repair could not be effected without a process</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>shutdown.</p> <p><u>vii.</u> The expected date of successful repair of the leak if a leak is not repaired within 15 days.</p> <p><u>viii.</u> Dates of process unit shutdown that occur while the equipment is unrepaired.</p> <p><u>ix.</u> The date of successful repair of the leak. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(c), dated 12/14/00]</i></p> <p>C. The following information pertaining to the design requirements for closed vent systems and control devices described in Section 9 of this unit shall be recorded and kept in a readily accessible location:</p> <p><u>1.</u> Detailed schematics, design specifications, and piping and instrumentation diagrams.</p> <p><u>2.</u> The dates and description of any changes in the design specifications.</p> <p><u>3.</u> A description of the parameter or parameters monitored, as required in 40 CFR 60, Subpart VV, §60.482-10(e), dated 12/14/00, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.</p> <p><u>4.</u> Periods when the closed vent systems and control devices required in Sections 1-4 of this unit are not operated as designed, including periods when a flare pilot light does not have a flame.</p> <p><u>5.</u> Dates of startups and shutdowns of the closed vent systems and control devices required in Sections 1-4 of this unit. <i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(d), dated</i></p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p><i>12/14/00]</i></p> <p>D. The following information pertaining to all equipment subject to the requirements in Sections 1-9 of this unit shall be recorded in a log that is kept in a readily accessible location:</p> <ol style="list-style-type: none"> <u>1.</u> A list of identification numbers for equipment subject to the requirements of this subpart. <u>2. a.</u> A list of identification numbers for equipment that are designed for no detectable emissions under the provisions of Sections 1(i)(D), 2(i)(F) and 6(i)(D) of this unit. <u>b.</u> The designation of equipment as subject to the requirements of Sections 1(i)(D), 2(i)(F) and 6(i)(D) of this unit shall be signed. <u>3.</u> A list of equipment identification numbers for pressure relief devices required to comply with Section 3 of this unit. <u>4. a.</u> The dates of each compliance test as required in Section 1(i)(D), 2(i)(F), 3, and 6(i)(D) of this unit. <u>b.</u> The background level measured during each compliance test. <u>c.</u> The maximum instrument reading measured at the equipment during each compliance test. <u>5.</u> A list of identification numbers for equipment in vacuum service. <p><i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(e), dated 12/14/00]</i></p> <p>E. The following information pertaining to all valves subject to the requirements of Sections 6(i)(E) and (F) of this unit and to all pumps subject to</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>Section 1(i)(F) of this unit shall be recorded in a log that is kept in a readily accessible location:</p> <ol style="list-style-type: none"> <u>1.</u> A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve and pump stating why the valve is unsafe-to-monitor, and the plan for monitoring each valve and pump. <u>2.</u> A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. <p><i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(f), dated 12/14/00]</i></p> <p>F. The following information shall be recorded for valves complying with Section 1 of this unit:</p> <ol style="list-style-type: none"> <u>1.</u> A schedule of monitoring. <u>2.</u> The percent of valves found leaking during each monitoring period. <p><i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(g), dated 12/14/00]</i></p> <p>G. The following information shall be recorded in a log that is kept in a readily accessible location:</p> <ol style="list-style-type: none"> <u>1.</u> Design criterion required in Sections 1(i)(C)(<u>5</u>) and 2(iii)(B)(<u>2</u>) of this unit and explanation of the design criterion; and <u>2.</u> Any changes to this criterion and the reasons for the changes. <p><i>[Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(h), dated 12/14/00]</i></p> <p>H. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be</p>	

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	recorded in a log that is kept in a readily accessible location. [Reference: 7 DE Admin. Code 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(j), dated 7/1/00].	
13. Reporting requirements: i. Standards: The Owner/Operator shall submit reports as given in section (v).	ii. Compliance Method Compliance with this condition shall be demonstrated in accordance with the reporting requirements of this section. [Reference: 7 DE Admin. Code 1130, Section 6.1.3 dated 11/15/93] iii. Monitoring/Testing None. iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. The Owner/Operator shall submit semiannual reports to the Department on February 1 and July 1 of each year. [Reference: 40 CFR 60, Subpart VV, §60.487(a), dated 12/14/00]. B. The initial semiannual report to the following Department shall include the following information: <u>1.</u> Process unit identification. <u>2.</u> Number of valves subject to the requirements of Section 6 of this unit, excluding those valves designated for no detectable emissions. <u>3.</u> Number of pumps subject to the requirements of Section 1 of this unit, excluding those pumps designated for no detectable emissions and those pumps complying with Section 2(i)(E) of this unit. <u>4.</u> Number of compressors subject to the requirements of Section 2 of this unit, excluding those compressors designated for no detectable emissions and those compressors complying with Section 2(i)(G). [Reference: 40 CFR 60, Subpart VV, §60.487(n), dated 12/14/00]. C. All semiannual reports to the Department shall

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
		<p>include the following information:</p> <ol style="list-style-type: none"> <u>1.</u> Process unit identification. <u>2.</u> For each month during the semiannual reporting period, <ol style="list-style-type: none"> <u>a.</u> Number of valves for which leaks were detected as described in Section 6(iii)(B) or Section 11 of this unit. <u>b.</u> Number of valves for which leaks were not repaired as required in Section 6(i)(B)(1) of this unit. <u>c.</u> Number of pumps for which leaks were detected as described in Section 1(iii)(B)(1) and 1(i)(C)(6)(a) of this unit. <u>d.</u> Number of pumps for which leaks were not repaired as required in Section 1(i)(B)(1) and 1(i)(C)(6)(b) of this unit. <u>e.</u> Number of compressors for which leaks were detected as described in Section 2(iii)(C) of this unit. <u>f.</u> Number of compressors for which leaks were repaired as required in Section 2(i)(D)(1) of this unit; and <u>g.</u> The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible. <u>3.</u> Dates of process unit shutdowns which occurred within the semiannual reporting period. <u>4.</u> Revisions to items reported according to paragraph (2) if changes have occurred since the initial report or subsequent revisions to the initial report. <p><i>[Reference: 40 CFR 60, Subpart VV, §60.487(c), dated 12/14/00].</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
		<p>D. An owner or operator electing to comply with the provisions of Sections 10 and 11 of unit shall notify the Department of the alternative standard selected 90 days before implementing either of the provisions. <i>[Reference: 40 CFR 60, Subpart VV, §60.487(d), dated 12/14/00].</i></p> <p>vi. Compliance Certification That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>
ob. Facility Wide Requirements for all emission units listed in Condition 1 of this permit and any insignificant activity listed in Regulation 30, Appendix A operated by the Owner/Operator or included in the permit application		
<p>1. Visible Emissions Standard: i. The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. <i>[Reference: 7 DE Admin. Code 1114 Section 2.1 dated 7/17/84]</i></p>	<p>ii. Compliance Method: Except for units where compliance with the visible emission standard is required to be demonstrated by an alternative monitoring plan., compliance with the emission standard of this condition shall be demonstrated in accordance with Subsection 1.5(c) of Regulation No. 20 and the recordkeeping requirements of this condition. <i>[Reference: 7 DE Admin. Code 1114, Section 4.1 dated 7/17/84 and 7 DE Admin. Code 1130, Section 6.1.3 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing: A. In accordance with Regulation No. 20 Section 1.5, conduct visual observations at fifteen second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 and 3 (except for</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	<p>Section 2.5 and the second sentence of Section 2.4) of reference Method 9 set forth in Appendix A, 40 CFR Part 60 revised July 1, 1982. <i>[Reference: 7 DE Admin. Code 1120, Section 1.5.3 dated 12/7/88]</i></p> <p>B. The Owner/Operator shall conduct weekly qualitative observations to determine the presence of any visible emissions.</p> <ol style="list-style-type: none"> 1. If visible emissions are observed, the Owner/Operator shall take corrective actions and/or determine compliance by conducting a visible observation in accordance with Paragraph (A) above. 2. If no visible emissions are observed or are within permitted limits, no further action is required. <p><i>[Reference: R7 DE Admin. Code 1130, Section 6.1.3 dated 12/11/00]</i></p> <p>iv. Record Keeping: The following records shall be maintained in accordance with Condition 3(b): Records of qualitative emission observations and Reference method 9 evaluations when emissions were observed. <i>[Reference: R7 DE Admin. Code 1130, Section 6.1.3.1.2 dated 12/11/00]</i></p>	
<p>2. Odor – State Enforceable Only</p> <p>i. The Owner/Operator shall not cause or allow the emission of an odorous air contaminant such as to cause a condition of air pollution. <i>[Reference: 7 DE Admin. Code 1119, Section 2.1 dated 2/1/81]</i></p>	<p>ii. Compliance Method: Compliance with the emission standard of this condition shall be demonstrated in accordance with the monitoring/testing and record keeping requirements of this condition. <i>[Reference: R7 DE Admin. Code 1130, Section 6.1.3 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing: Includes but is not limited to scentometer tests, air quality monitoring, and affidavits from affected citizens and investigators. <i>[Reference: 7 DE Admin. Code 1119, Section 2.1 dated 2/1/81]</i></p> <p>iv. Recordkeeping: Records of all monitoring/testing shall be</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	maintained in accordance with Condition 3(b). [Reference: 7 DE Admin. Code 1130, Section 6.1.3.1.2 dated 12/11/00]	
3. Petroleum Refinery Sources i. Operational Limitations: With the exception of segregated storm water runoff drain systems and non-contact cooling water systems, the Owner/Operator shall comply with the following standards for process unit turnarounds: A. <u>Process Unit Turnarounds</u> : The owner or operator of a petroleum refinery shall provide for the following during process unit turnaround: 1. Depressurization venting of the process unit or vessel to a vapor recovery system, flare, or firebox. 2. No emission of VOC from a process unit or vessel until its internal pressure is 136 kiloPascals (kPa)(19.7 pounds per square inch atmospheric [psia]) or less. [Reference: 7 DE Admin. Code 1124 Section 28(c) dated 11/11/93].	ii. Compliance Method: [Reference: 7 DE Admin. Code 1124 Section 28(c) and (d) dated 11/11/93 and 7 DE Admin. Code 1130, Section 6.1.3.1.2 dated 12/11/00] A. Compliance with Operational Limitation (A), i.e., during process unit turnarounds, shall be based upon the Owner/Operator conducting depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. The Owner/Operator shall monitor the pressure in each process or vessel until its internal pressure is 136 kPa or less. B. Compliance with Operational Limitation (B) shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. iii. Monitoring/Testing: None in addition to those listed in Condition 3(b)(1)(ii). iv. Record Keeping: The following records shall be maintained in accordance with Condition 3(b): A. Date of every process unit or vessel turnaround. B. The internal pressure of the process unit or vessel immediately prior to venting to the atmosphere. [Reference: 7 DE Admin. Code 1124, Section 28(c) and (d) dated 11/11/93].	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] vi. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
4. General conditions applicable to all pollutants: i. Operational Limitations: A. At all times, including periods of startup,	ii. Compliance Methodology: . [Reference: 7 DE Admin. Code 1130, Section 6.1.3.1.2 dated 12/11/00] Compliance with the Operational Limitation shall be based on whether acceptable operating	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>shutdown, and malfunction, the Owner/Operator shall maintain and operate the equipment and processes covered by this Permit, including all structural and mechanical components of all equipment and processes and all associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. <i>[Reference: 7 DE Admin. Code 1130, Section 6.1.3.1.2 dated 12/11/00]</i></p>	<p>procedures are being used will be based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.</p> <p>iii. Monitoring/Testing: None in addition to those listed in Condition 3(b)(1)(ii).</p> <p>iv. Record Keeping: None in addition to those listed in Condition 3(b)(2) of this permit.</p>	<p><i>6.2.1 dated 12/11/00]</i></p> <p>vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>
<p>5. Sulfur Dioxide</p> <p>i. Operational Limitation: The Owner/Operator shall not purchase for use and shall not use any fuel having a sulfur content greater than 1.0 percent. <i>[Reference: Regulation No. 8, Section 2.1 dated 5/9/85]</i></p>	<p>ii. Compliance Methodology: Compliance with the operational limitation shall be based on the fuel type and quality. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.1.2 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing: None in addition to those listed in Condition 3(b)(1)(ii).</p> <p>iv. Record Keeping: The Owner/Operator shall maintain a record of the type of fuel purchased for use or used in any emission unit. <i>[Reference:7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]</i></p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>
<p>6. Volatile Organic Compounds Handling, Storage and Disposal of VOCs.</p> <p>i. Work Practice Standards:</p> <p>A. The Owner/Operator shall not cause, allow, or permit the disposal of more than eleven (11) pounds of a Volatile Organic Compound (VOC), or of any</p>	<p>ii. Compliance Method: Compliance shall be demonstrated by adherence with the VOC handling work practices and by providing appropriate training and posting of instructions, and record keeping for storage, use and disposal of VOCs. <i>[Reference:7 DE Admin. Code 1130 Section 6.1.3 dated 12/11/00]</i></p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference :7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification:</p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>materials containing more than eleven (11) pounds of any VOCs, in any one (1) day, in a manner that would permit the evaporation of VOC into the ambient air. This includes but is not limited to the disposal of VOC from any VOC control devices. This provision does not apply to:</p> <ol style="list-style-type: none"> 1. Any VOC or material containing VOC emitted from a regulated entity that is subject to a VOC standard under Regulation No. 24. 2. Any VOC or material containing VOCs used during process maintenance turnarounds for cleaning purposes, provided that the provisions of paragraph (B), (C), and (D) of this condition are followed. 3. Waste paint (sludge) handling systems, water treatment systems, and other similar operations at coating facilities using complying coatings. <p>B. No owner or operator of a facility subject to this regulation shall use open containers for the storage or disposal of cloth or paper impregnated with VOCs that are used for surface preparation, cleanup, or coating removal. Containers for the storage or disposal of cloth or paper impregnated with VOCs shall be kept closed,</p>	<p>iii. Monitoring/Testing: Monitor employee training records on an annual basis and update records as needed. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3 dated 12/11/00]</i></p> <p>iv. Recordkeeping: The Owner/Operator shall keep a record of postings, and employee training related to these work practice standards of handling, storage, and disposal of VOCs. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3 dated 12/11/00]</i></p>	<p>That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
<p>except when adding or removing material.</p> <p>C. No owner or operator of a facility subject to this regulation shall store in open containers spent or fresh VOC to be used for surface preparation, cleanup or coating removal. Containers for the storage of spent or fresh VOCs shall be kept closed, except when adding or removing material.</p> <p>D. No owner or operator shall use VOC for the cleanup of spray equipment unless equipment is used to collect the cleaning compounds and to minimize their evaporation to the atmosphere.</p> <p><i>[Reference: 7 DE Admin. Code 1124 Section 8 dated 11/29/93]</i></p>		
<p>7. Insignificant Emissions Units</p> <p>i. The facility is allowed to operate the insignificant emissions units listed in Attachment “C” of this permit. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.1 dated 12/11/00]</i></p>	<p>ii. Compliance Method: Compliance shall be based on following good air pollution control practices, the monitoring/testing and recordkeeping requirements. <i>[Reference: 7 DE Admin. Code 1130 Section 6.1.3 dated 12/11/00]</i></p> <p>iii. Monitoring/Testing: None in addition to Condition 3(b) of this permit.</p> <p>iv. Recordkeeping: None in addition to Condition 3(b) of this permit.</p>	<p>v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. <i>[Reference : 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p> <p>vi. Certification: That required by Condition 3(c)(3) of this permit. <i>[Reference: 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]</i></p>

Condition 4. Operational Flexibility

- a.** In addition to the operational flexibility specifically provided in the terms and conditions detailed in Condition 3 – Table 1 of this permit, the Owner and/or Operator is authorized to make any changes within the facility which contravenes the terms and conditions of this permit without a permit revision if the change:
1. Is not a modification or otherwise prohibited under any provision of Title I of the Act or the State Implementation Plan (SIP); and *[Reference: 7 DE Admin. Code 1130 Section 6.8 dated 12/11/00]*
 2. Does not involve a change in any compliance schedule date; and *[Reference: 7 DE Admin. Code 1130 Section 6.8 dated 12/11/00]*
 3. Does not result in a level of emissions exceeding the emissions allowable under this permit, whether expressed herein as a rate of emissions or in terms of total emissions. *[Reference: 7 DE Admin. Code 1130 Section 6.8 dated 12/11/00]*
- b.** Before making a change under the provisions of Condition 4(a) of this permit, the Owner and/or Operator shall provide advance written notice to the Department and to the EPA in accordance with Condition 3(c)(2)(iii) of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*
- c.** The Owner and/or Operator shall keep records of any changes made under Condition 4 of this permit in accordance with Condition 3(b)(2)(iv) of this permit. *[Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]*

Condition 5. Compliance Schedule

This permit does not contain a compliance schedule. *[Reference: 7 DE Admin. Code 1130 Section 6.3.3 dated 12/11/00]*

Condition 6. Permit Shield

Compliance with the terms and conditions of this permit shall be deemed compliance with the applicable requirements as provided in Condition 6 -Table 1 as of the effective date of this permit.

[Reference: 7 DE Admin. Code 1130 Section 6.6.3 dated 12/11/2000]

Condition 6 – Table 1

Emission Unit	Applicable Requirement
1. Emission Unit 10	i. Regulation No. 2 ii. Regulation No. 3 iii. Regulation No. 4, Section 2.1 iv. Regulation No. 8, section 2.1 v. Regulation No. 12, Section 4.1 vi. Regulation No. 14, Section 2.1 vii. Regulation No. 20 viii. Regulation No. 24, Sections 1-10, 26, 28, 29 and 36 ix. 40 CFR Part 60, Subpart J x. 40 CFR Part 60, Subpart QQQ xi. 40 CFR Part 62, Subpart FF xii. 40 CFR Part 63, Subpart CC
2. Emission Unit 15	i. Regulation No. 2 ii. Regulation No. 3

	<ul style="list-style-type: none">iii. Regulation No. 4, Section 2.1iv. Regulation No. 8, Section 2.1v. Regulation No. 12vi. Regulation No. 14, Section 2.1vii. Regulation No. 17, Section 2.2viii. Regulation No. 20ix. Regulation No. 24, Section 1-10, 28, 29 and 43x. 40 CFR Part 60, Subpart Axi. 40 CFR Part 60, Subpart Jxii. 40 CFR Part 63, Subpart Yxiii. 40 CFR Part 63, Subpart CC
3. Emission Unit 21	<ul style="list-style-type: none">i. Regulation No. 2ii. Regulation No. 3iii. Regulation No. 4, Section 2.1iv. Regulation No. 8, Section 2.1v. Regulation No. 9, Section 1.1vi. Regulation No. 12vii. Regulation No. 14, Section 2.1viii. Regulation No. 17, Section 2.3ix. Regulation No. 20x. Regulation No. 24, Section 1-10 and 29xi. Regulation No. 25xii. Regulation No. 39xiii. 40 CFR Part 60, Subpart Jxiv. 40 CFR Part 60, Subpart VVxv. 40 CFR Part 60, Appendix Bxvi. 40 CFR Part 60, Appendix Fxvii. 40 CFR Part 63, Subpart CC
4. Emission Unit 22	<ul style="list-style-type: none">i. Regulation No. 2ii. Regulation No. 3iii. Regulation No. 4, Section 2.1iv. Regulation No. 5v. Regulation No. 8, Section 2.1vi. Regulation No. 9, Section 1.1vii. Regulation No. 11, Section 2.1viii. Regulation No. 12, Section 3ix. Regulation No. 14, Section 2.1x. Regulation No. 17, Section 2.3xi. Regulation No. 24, Section 1-10 and 29xii. Regulation No. 39xiii. 40 CFR Part 60, Subpart VVxiv. 40 CFR Part 60, Appendix Bxv. 40 CFR Part 60, Appendix Fxvi. 40 CFR Part 63, Subpart CC
5. Emission Unit 23	<ul style="list-style-type: none">i. Regulation No. 2ii. Regulation No. 3iii. Regulation No. 4, Section 2.1iv. Regulation No. 5v. Regulation No. 8, Section 2.1vi. Regulation No. 9, Section 1.1vii. Regulation No. 11, Section 2.1viii. Regulation No. 14, Section 2.1ix. Regulation No. 17, Section 2.3

	<ul style="list-style-type: none">x. Regulation No. 20xi. Regulation No. 24, Sections 1-10 and 29xii. Regulation No. 39xiii. 40 CFR Part 60, Subpart VVxiv. 40 CFR Part 63, Subpart CCxv. 40 CFR Part 63, Subpart UUU
6. Emission Unit 24	<ul style="list-style-type: none">i. Regulation No. 2ii. Regulation No.3iii. Regulation No. 20iv. Regulation No. 24, Section 1-10 and 29v. 40 CFR Part 60, Subpart Jvi. 40 CFR Part 60, Subpart VVvii. 40 CFR Part 60, Appendix Bviii. 40 CFR Part 60, Appendix Fix. 40 CFR Part 63, Subpart CC
7. Emission Unit 25	<ul style="list-style-type: none">i. Regulation No. 2ii. Regulation No. 3iii. Regulation No. 4, Section 2.1iv. Regulation No. 5, Section 2.1v. Regulation No. 8, Section 2.1vi. Regulation No. 12, Section 3vii. Regulation No. 14, Section 2.1viii. Regulation No. 17, Section 2.3ix. Regulation No. 20x. Regulation No. 24, Sections 1-10 and 29xi. 40 CFR Part 60, Subpart Jxii. 40 CFR Part 60, Subpart VVxiii. 40 CFR Part 60, Appendix Bxiv. 40 CFR Part 60, Appendix Fxv. 40 CFR Part 63, Subpart CC
8. Emission Unit 28	<ul style="list-style-type: none">i. Regulation No. 2ii. Regulation No. 3iii. Regulation No. 4, Section 2.1iv. Regulation No. 5v. Regulation No. 8, Section 2.1vi. Regulation No. 9, Section 3vii. Regulation No. 12viii. Regulation No. 14, Section 2.1ix. Regulation No. 17x. Regulation No. 20xi. Regulation No. 24, Sections 1-10 and 29xii.40 CFR Part 60, Subpart Jxiii. 40 CFR Part 60, Subpart VVxiv. 40 CFR Part 60, Appendix Bxv. 40 CFR Part 60, Appendix Fxvi. 40 CFR Part 63, Subpart CCxvii. 40 CFR Part 63, Subpart UUU
9. Emission Unit 37	<ul style="list-style-type: none">i. Regulation No. 2ii. Regulation No. 3iii. Regulation No. 4, Section 2.1

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	<ul style="list-style-type: none">iv. Regulation No. 8, Section 2.1v. Regulation No. 12, Section 3vi. Regulation No. 14, Section 2.1vii. Regulation No. 17, Section 2.3viii. Regulation No. 24, Sections 1-10, 29 and 50ix. Regulation No. 39x. 40 CFR Part 60, Subpart VVxi. 40 CFR Part 60, Appendix Bxii. 40 CFR Part 60, Appendix Fxiii. 40 CFR Part 60, Subpart CC
10. Emission Unit 42	<ul style="list-style-type: none">i. Regulation No. 2ii. Regulation No. 3iii. Regulation No. 4, Section 2.1iv. Regulation No. 8, Section 2.1v. Regulation No. 12, Section 3vi. Regulation No. 14, Section 2.1vii. Regulation No. 17, Section 2.3viii. Regulation No. 20ix. Regulation No. 24, Section 1-10 and 29x. Regulation No. 39xi. 40 CFR Part 60, Subpart Jxii. 40 CFR Part 60, Subpart VVxiii. 40 CFR Part 60, Appendix Bxiv. 40 CFR Part 60, Appendix Fxv. 40 CFR Part 63, Subpart CCxvi. 40 CFR Part 63, Subpart UUU
11. Emission Unit 45	<ul style="list-style-type: none">i. Regulation No. 2ii. Regulation No. 3iii. Regulation No. 14, Section 2.1iv. Regulation No. 17, Section 2.1 and 2.2v. Regulation No. 24, Section 1-10 and 29vi. 40 CFR Part 60, Subpart Avii. 40 CFR Part 60, Subpart VV
12. Emission Units 24, 26, 27 and Facility-wide	<ul style="list-style-type: none">i. Regulation No. 3ii. Regulation No. 14, Section 2.1iii. Regulation No. 17, Section 2.2 and 7iv. Regulation No. 19, Section 2.1v. Regulation No. 24, Section 1-10, 9, 28, 29, 40 and 50vi. 40 CFR Part 60, Subpart VVvii. 40 CFR Part 63, Subpart CC

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Revision History:

Date	Number	Revision Type	Description
05.27.2008			Original issuance

ATTACHMENT “A”

[RESERVED]

ATTACHMENT “B”

Initial Evaluation of Operation and Performance of the FCCU WGS

The procedures described herein provide for the initial evaluation and performance of the FCCU WGS spanning a period of 12 months from start up. Start up of the FCCU WGS has an effective date of December 31, 2006. These requirements are applicable during the interim period plus an additional 6 months ending June 30, 2008. After the expiration of the 18 month start up period, these procedures will expire and the Owner/Operator must comply with all emissions limitations and all conditions in the Operating permit, even during startup, shutdown and during trips or malfunctions unless the permit is revised in accordance with the following: The Owner/Operator submits to DNREC proposed operating procedures to govern such occurrences that may occur after the 12 month period and DNREC will review these procedures and will incorporate appropriate operating scenarios to govern such instances into this permit. Provided, however, that any incorporated operating scenario governing beyond the 12 month period shall specify that after a time certain the Owner/Operator must effectuate the turndown ratios provided in this Attachment and that after a future time certain the Owner/Operator may not continue to operate the FCCU without the pollution control devices so that the FCCU must be turned off rather than turned down, and under what circumstances.

Rationale:

The technology incorporated into the WGS has not previously been implemented in any similar application at any other facility in the United States. Accordingly, the Owner/Operator shall perform an enhanced evaluation during the twelve month period following initial operation of the WGS of anticipated variations in the WGS system performance, including any malfunction or other unintended shutdown of the WGS system. Premcor shall investigate the underlying causes of any malfunction, evaluate the effectiveness of various operational practices, and analyze alternative maintenance procedures. The objective of these investigations will be to identify reasonably available maintenance and operating practices that will minimize events resulting in the bypass of the Belco prescrubber and the WGS, and to minimize the duration of any such bypass incidents in the event that they occur. Premcor will implement appropriate corrective action to minimize the duration of any bypass event during these circumstances. In addition, Premcor will continue to implement the turndown matrix provided in this Attachment during this twelve month evaluation period.

Interim Control Measures

The Owner/Operator shall comply with the following interim control measures:

1. The requirements in Condition 2 and Regulations 5, 11 and 14 of the State of Delaware “**Regulations Governing the Control of Air Pollution**” shall not apply during periods of planned start up and planned shut downs of the FCCU provided the planned start up and shut down event does not exceed 72 hours. The requirements shall apply to each planned start up or shut down event after the expiration of the 72 hour period.

NOTES:

- a. Start-up of the FCCU begins when feed is first introduced into the reaction section of the Fluid Catalytic Cracking Unit, and the start-up is complete when the FCCU has reached a stable, steady state operation.
 - b. Shut-down of the FCCU begins when feed first begins to be reduced to the reaction section of the FCCU and is complete when no feed is entering the FCCU reaction section.
2. **Unplanned Start-up and Shutdown of Fluid Catalytic Cracker Unit CO Boiler and Wet Gas Scrubber.** In the event that the FCCU COB is to be shut down for a period longer than 24 hours, Premcor shall promptly begin necessary process changes to provide for the complete combustion of carbon monoxide. Full CO combustion operation shall be achieved within 24 hours.

If there is an emergency shutdown of the FCCU CO Boiler and WGS due to upsets or malfunctions, the refinery will take the following steps:

- Immediately begin the necessary process changes to allow for the complete combustion of carbon monoxide in the regenerator; and
- FCCU throughput and operating conditions will be safely adjusted as necessary (see FCCU Turndown Factor below) to allow full CO combustion operation to be achieved within 24 hours of attainment of appropriate operating conditions.

During this period (24 hours maximum), the requirements in Condition 2 and Regulations 5, 11 and 14 of the State of Delaware “**Regulations Governing the Control of Air Pollution**” shall not apply.

If there is an unplanned or emergency shutdown of the FCCU CO Boiler and the Wet Gas Scrubber system, the refinery will conduct an evaluation of the cause of the shutdown. If the CO Boiler and Wet Gas Scrubber can be repaired in less than 24 hours, then the regenerator flue gas may continue to be diverted to the metal bypass stack to allow the CO Boiler and Wet Gas Scrubber to be repaired or restarted, and combustion promoter need not be added. It is recognized that up to 10 days may be required to shutdown CO combustion operation and return to conventional regeneration once CO promoter is introduced into the regenerator. Until the FCCU CO boiler and WGS are returned to normal operation, in order to minimize FCCU emissions, the FCCU feed rate will be reduced to the minimum operating rate as described in the FCCU Turndown Factor below.

3. By no later than February 29, 2008, Premcor shall submit to the Department a report describing the individual incidents during which bypasses occurred, the duration of any such bypass and the results of Premcor’s investigation into the cause of the bypass event. The report shall also include Premcor’s proposal for determining, the circumstances under which an unplanned shutdown of the FCCU COB, Belco prescrubber and WGS should trigger initiation of procedures to shutdown the FCCU. The report shall include a specific proposal describing the maximum duration that the FCCU will be allowed to operate in the bypass mode before it is shut down. In determining such maximum duration that the FCCU will be allowed to operate in the bypass mode, Premcor shall take into consideration engineering analysis, good air pollution control practices and the outer bounds set by planned start ups and shut downs. The Department will review the report and incorporate appropriate revised operating scenarios in this permit.

FCCU Turn Down Factor

These procedures have been incorporated to minimize FCCU emissions during time periods that the FCCU COB and WGS are bypassed due to alternate operating scenarios (conditions of start-up, shutdown or malfunctions).

1. If the Owner/Operator’s initial assessment indicates that the FCCU CO Boiler and WGS can be returned to service within 24 hours after the unplanned shutdown or emergency shutdown, then no rate cuts will be initiated and combustion promoter need not be added. The FCCU may continue to operate until the CO boiler and WGS are restarted.
2. If the Owner/Operator’s initial assessment indicates that the FCCU CO Boiler and WGS cannot be returned to service within 24 hours after the unplanned or emergency shutdown, the Owner/Operator shall take the following actions:
 - a. The Owner/Operator will promptly begin to reduce the FCCU feed rate at a rate of 5,000 bph until the unit is operating at 55,000 bpd; and

- b. Combustion promoter will be added to the FCCU regenerator when appropriate operating conditions have been achieved. Fully promoted (complete) combustion will be achieved within 24 hours of the start of the unplanned or emergency shutdown; and
- c. It is recognized that up to ten days may be required to shutdown CO combustion-promoted burn and return the FCCU regenerator to conventional regeneration; and
- d. Once full burn operation is achieved, the FCCU will continue to operate at no more than 55,000 bpd until the CO boiler and WGS are returned to normal operation.

ATTACHMENT "C"

AQM-1001CC/Group 1 Insignificant Activities

Insignificant Activity/Description	Basis [1]	Insignificant Activity Details
Air contaminant detectors, Air contaminant recorders, combustion controllers and combustion shut-offs	(a)	No applicable federal or state requirement(s), hence no list required nor available.
Fuel-burning equipment which uses any fuel and has a rated heat input of less than 15 million BTUs per hour	(b)(1)	The stationary fuel burning sources less than 15 MMBtu/hr are included in AQM-1001A. Insignificant fuel burning activities not listed include: cooking fires, building HVAC, portable space heaters, portable igniters, etc. There are no applicable federal or state requirement(s), hence no list is required or available.
Internal Combustion Engine that Drives Compressors	(b)(2)	Internal combustion engines used to drive compressors are listed in the "Initial Compliance Certification" dated 01/24/94 for NOx RACT (see Appendix G). All equipment, if any, meeting this definition were deemed to be exempt.
Internal Combustion Engine that Drives Generators	(b)(2)	Internal combustion engines used to drive generators are listed in the "Initial Compliance Certification" dated 01/24/94 for NOx RACT (see Appendix G). All equipment, if any, meeting this definition were deemed to be exempt.
Internal Combustion Engine that Drives Water Pumps	(b)(2)	Internal combustion engines used to drive water pumps are listed in the "Initial Compliance Certification" dated 01/24/94 for NOx RACT (see Appendix G). All equipment, if any, meeting this definition were deemed to be exempt.
Internal Combustion Engine that Drives Other Auxiliary Equipment During Emergency or Standby Operations	(b)(2)	Internal combustion engines used to drive other auxiliary equipment are listed in the "Initial Compliance Certification" dated 01/24/94 for NOx RACT (see Appendix G). All equipment, if any, meeting this definition were deemed to be exempt.
Air Conditioning and Comfort Ventilating Systems	(c)	No applicable federal or state requirement(s), hence no list required nor available.

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Insignificant Activity/Description	Basis [1]	Insignificant Activity Details
Vacuum Cleaning Systems Used Exclusively for Office Applications	(d)	No applicable federal or state requirement(s), hence no list required nor available.
Ventilating or Exhaust Systems for Print Storage Room Cabinets	(e)	No applicable federal or state requirement(s), hence no list required nor available.
Exhaust System for Controlling Steam and Heat	(f)	No applicable federal or state requirement(s), hence no list required nor available.
Laboratories that conduct chemical or physical analysis or determination of product quality and commercial acceptance (not part of production process)	(g)	Laboratory constructed in 1956 and is exempt per DNREC Regulation No. 2; no applicable federal or state requirement(s), hence no additional information is required nor available.
Internal Combustion Engines and Vehicles Used for the transport of passengers or freight	(h)	No applicable federal or state requirement(s), hence no list required nor available.
Maintenance, repair or replacement-in-kind or equipment for which a permit to operate has been issued	(j)	This is merely an activity, hence no list required nor available.
Equipment which only emits elemental nitrogen, oxygen, carbon dioxide and/or water vapor	(k)	No applicable federal or state requirement(s), hence no list required nor available.
Ventilating and Exhaust Systems used in cafeterias and eating facilities	(l)	No applicable federal or state requirement(s), hence no list required nor available.
Equipment used to liquefy or separate oxygen, nitrogen or the rare gases from the air	(m)	No applicable federal or state requirement(s), hence no list required nor available.
Outdoor painting and sandblasting equipment	(p)	No applicable federal or state requirement(s), hence no list required nor available.
Lawn mowers, tractors, farm equipment and construction equipment	(q)	No applicable federal or state requirement(s), hence no list required nor available.

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Insignificant Activity/Description	Basis [1]	Insignificant Activity Details
Any activity related to routine maintenance and repair of a facility where emissions would not be associated with a primary production process of the facility. Such activities may include	(s)	No applicable federal or state requirement(s), hence no list required nor available.
Cleaning	(s)(i)	No applicable federal or state requirement(s), hence no list required nor available.
Solvent Use	(s)(ii)	No applicable federal or state requirement(s), hence no list required nor available.
Steam Cleaning	(s)(iii)	No applicable federal or state requirement(s), hence no list required nor available.
Painting	(s)(iv)	No applicable federal or state requirement(s), hence no list required nor available.
Degreasing	(s)(v)	No applicable federal or state requirement(s), hence no list required nor available.
Washing	(s)(vi)	No applicable federal or state requirement(s), hence no list required nor available.
Welding	(s)(vii)	No applicable federal or state requirement(s), hence no list required nor available.
Vacuuming	(s)(viii)	No applicable federal or state requirement(s), hence no list required nor available.
Coating	(s)(ix)	No applicable federal or state requirement(s), hence no list required nor available.
Sweeping	(s)(x)	No applicable federal or state requirement(s), hence no list required nor available.

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Insignificant Activity/Description	Basis [1]	Insignificant Activity Details
Abrasive Use	(s)(xi)	No applicable federal or state requirement(s), hence no list required nor available.
Insulation Removal	(s)(xii)	No applicable federal or state requirement(s), hence no list required nor available.
Fire schools or fire fighting training	(t)	No applicable federal or state requirement(s), hence no list required nor available.
Buildings, cabinets and facilities used for storage of chemicals in closed containers	(u)	No applicable federal or state requirement(s), hence no list required nor available.
Gasoline storage tanks that have a capacity less than 2,000 gallons and that were constructed after January 1, 1979	(v)(ii)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).
Gasoline storage tanks that have a capacity less than 250 gallons and that were constructed after December 31, 1978	(v)(iii)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).
Diesel and fuel oil storage tanks with a capacity of 40,000 gallons or less	(w)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).
Gasoline and diesel fuel dispensing systems that never exceed a monthly throughput of 10,000 gallons	(x)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).
Inorganic acid storage tanks equipped with an emission control device	(z)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).
Sewage treatment facilities	(aa)	See custom Form AQM-1001B for Unit 10 Waste water Treating Unit.
Water treatment units	(bb)	See custom Form AQM-1001B for Unit 10 Waste water Treating Unit.
Quiescent wastewater treatment operations	(cc)	See custom Form AQM-1001B for Unit 10 Waste water Treating Unit.
Non-contact water cooling towers	(dd)	See custom Form AQM-1001B for cooling tower sources

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Insignificant Activity/Description	Basis [1]	Insignificant Activity Details
Laundry dryers, extractors, or tumblers used for fabrics cleaned with a water solution of bleach or detergents	(ee)	No applicable federal or state requirement(s), hence no list required nor available.
Equipment used for hydraulic testing or hydrostatic testing	(ff)	No applicable federal or state requirement(s), hence no list required nor available.
Blueprint copiers or photographic processes	(gg)	No applicable federal or state requirement(s), hence no list required nor available.

NOTE [1]: Basis codes refer to items in Delaware Regulation 30, Appendix A, Insignificant Activities List.

AQM-1001CC/Group 2-Insignificant Activities

Source (Activity/Equipment Description)	Pollutant	CAS Number	Potential to Emit Emission Rate	Basis [1]	Insignificant Activity PTE Threshold [2]	Source Details
Motor Vehicle Diesel Loading	VOC	N/A	<25 TPY	a	25 TPY	See exemption for throughput < 10, 000 gallons / month in Regulation 30 Appendix A section (x).
Motor Vehicle Gasoline Loading	VOC	8006-61-9	<25 TPY	a	25 TPY	See exemption for throughput < 10, 000 gallons / month in Regulation 30 Appendix A section (x).
WWTP Wet Oil Sludge Loading	VOC	N/A	<25 TPY	a	25 TPY	See emission calculation on detail sheet AQM-1001CC/Group 2 - Calculation.
Ammonia Unloading	NH ₃	7664-41-7	<25 TPY	a	N/A [3]	The regulated air contaminant is in an enclosed system; emissions are negligible.
Ammonia Storage Tank 417-TP-M Used for Ph Control at Crude Unit	Ammonia	7664-41-7	<10 TPY	a	N/A [3]	The regulated air contaminant is in an enclosed system; emissions are negligible.
Ammonia-Mobile Trailers (Hydrocracker and other Units)	Ammonia	7664-41-7	<10 TPY	a	N/A [3]	The regulated air contaminant is in an enclosed system; emissions are negligible.
Fuel Oil/Diesel Loading	VOC	N/A	<25 TPY	a	25 TPY	See exemption for throughput < 10, 000 gallons / month in Regulation 30 Appendix A section (x). No toluene loading here.

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Source (Activity/Equipment Description)	Pollutant	CAS Number	Potential to Emit Emission Rate	Basis [1]	Insignificant Activity PTE Threshold [2]	Source Details
Decant/Heavy Oil Loading	VOC	N/A	<25 TPY	a	25 TPY	See emission calculation on detail sheet AQM-1001CC/Group 2 - Calculation.
Propane Loading	VOC	N/A	<25 TPY	a	25 TPY	The regulated air contaminant is in an enclosed system; emissions are negligible.
Glycol Water Reservoir D-38	VOC	N/A	<25 TPY	a	25 TPY	There are negligible emissions of any regulated air contaminant.
Sulfuric Acid Loading	SO ₂ /H ₂ SO ₄	7446-09-05	<25 TPY	a	25 TPY	There are negligible emissions of the listed regulated air pollutant.
Vent Boxes for Cooling Water System	VOC	N/A	<25 TPY	a	25 TPY	There are negligible emissions of the listed regulated air pollutant.
Boiler Feedwater Chemical Storage Tanks	VOC	N/A	<25 TPY	a	25 TPY	There are negligible emissions of the listed regulated air pollutant.
LUB Oil Units/Systems	VOC	N/A	<25 TPY	a	25 TPY	There are negligible emissions of the listed regulated air pollutant.
Small Unit Tanks used for Raw Materials, Additives, Reagents and Intermediates with a capacity less than 40,000 gallons	VOC	N/A	<25 TPY	a	25 TPY	See detail sheet "AQM-1001CC/Group 2 Insignificant Activities Detail Sheet Small Unit Tanks Used for Raw Materials, Additives, Reagents and Intermediates"

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Source (Activity/Equipment Description)	Pollutant	CAS Number	Potential to Emit Emission Rate	Basis [1]	Insignificant Activity PTE Threshold [2]	Source Details
FCCU Catalyst System	PM	N/A	<100 TPY	a	100TPY	See emission calculation on detail sheet AQM-1001CC/Group 2 - Calculation.
Cooling Water Supply Pumps	VOC	N/A	<25 TPY	a	25 TPY	There are negligible emissions of the listed regulated air pollutant.

NOTE [1]: Bases for Determinations are as follows:

(a) = potential to emit emissions rate is below threshold for insignificant activities emissions.

NOTE [2]: Insignificant Activity PTE threshold based on Delaware Regulation No. 30, Appendix A, for Emission Units for which an applicable requirement has not yet been promulgated and which are not elsewhere listed as an insignificant activity.

NOTE [3]: No Insignificant Activity PTE Threshold Established.

NOTE [4]: This source was formerly named "Toluene Loading".

ATTACHMENT "D"

Protocol for Carbon Canister Monitoring – Oily Water Sewer

The purpose of monitoring the carbon canisters is to determine if the primary canister is removing VOC emissions to prevent breakthrough which has been redefined as 50 ppm between the primary and secondary carbon canister. A Photoionization Detector (PID) will be used for this purpose. The PID will be calibrated daily prior to monitoring. The monitoring program will be conducted according to the following procedure at each canister location:

1. Calibrate the PID daily prior to monitoring;
2. Follow all routine DCR safety procedures;
3. If necessary, obtain and secure necessary work permits prior to entering process units and/or work areas to monitor canisters;
4. Check hose to the canisters to assure that there are no leaks;
5. Check for water accumulation by opening the drain valve prior to monitoring;
6. Measure the background TOV concentration at the canister (with the PID) and record the reading;
7. Measure the effluent TOV concentration at the outlet of the primary canister (with the PID) and record the reading. If the TOV concentration is less than 50 ppm proceed to the next canister location repeating steps 4-7.
8. If the TOV concentration at the outlet of the primary canister is 50 ppm or greater, the primary canister is determined to be spent.

When VOC breakthrough occurs after the primary canister, the canister configuration will be switched and the spent canister will be replaced with a fresh canister in accordance with paragraph 69 of the Consent Decree as follows:

“[The Owner/Operator] shall replace the primary carbon canisters with fresh carbon canisters immediately when breakthrough is detected in accordance with 40 CFR 61.354(d). The original secondary carbon canister will then become the new primary carbon canister. For this Paragraph, “immediately” shall mean eight (8) hours for canisters of 55 gallons or less, twenty-four (24) hours for canisters between 55 gallons up to 20,000 lbs., and 48 hours for canisters 20,000 lbs. or larger.”

Additionally, as specified in paragraph 68 of the Consent Decree, the carbon canister monitoring will be conducted in accordance with the frequency specified in 40 CFR 61.354(d).

Carbon Canister Locations

Canister ID	Location	Size (Lbs)
40-S-132	Sleeperway S of Tank 281	180
40-S-133	Sleeperway Tank 261	180
40-S-136	Sleeperway S of Tank 241	180
40-S-137	Sleeperway S of Tank 221	180
40-S-141	Sleeperway S of Tank 201	180
40-S-142	Sleeperway S of Tank 181	180
40-S-145	Sleeperway S of Tank 261	180
40-S-146	Sleeperway S of Tank 261	180
40-S-147	Sleeperway S of Tank 261	180
40-S-150	By Tank 135	180
40-S-151	S of truck loading rack	1,800
40-S-152	N of Tank 8	1,800
40-S-110	4 th Street E of coker	1,800
40-S-111	4 th & G Street E of Tetra	1,800
40-S-112	4 th & G Street E of Tetra	180
40-S-113	4 th & F Street E of Train 2	1,800
40-S-114	6 th & G Street NE corner	1,800
40-S-115	6 th & F Street N of Train 2	180
40-S-116	SW Tank 73 Mid Pump Pit	180
40-S-118	S of Tank 65	180
40-S-119	E of Tank 78	180
40-S-122	S of Tank 60	180
40-S-124	Field S of Tanks 405/406	180
40-S-125	W of Toluene Day Tanks	180
40-S-126	E of Tank 45	180
40-S-127	E of Tank 44 Utilities	180
10-S-330	Wet Oil Building	1,800
10-S-331	WWTP Mix Tank	180

ATTACHMENT "E"

Protocol for Carbon Canister Monitoring – API/CPI Oily Water Separators
(Canisters in Series)

The purpose of monitoring the carbon canisters is to determine if the canister is removing VOC emissions with an efficiency of 95% or greater. A Photoionization Detector (PID) will be used for this purpose. The PID will be calibrated daily prior to monitoring. The monitoring program will be conducted according to the following procedure at each canister location:

1. Calibrate the PID daily prior to monitoring;
2. Follow all routine DCR safety procedures;
3. If necessary, obtain and secure necessary work permits prior to entering process units and/or work areas to monitor canisters;
4. Check hose to the canisters to assure that there are no leaks;
5. Check for water accumulation by opening the drain valve prior to monitoring;
6. Measure the background TOV concentration at the canister (with the PID) and record the reading;
7. Measure the effluent TOV concentration at the outlet of the primary canister (with the PID) and record the reading. If no TOV concentration above background is detected proceed to the next canister location repeating steps 4-7.
8. If the TOV concentration at the outlet of the first canister is above background then open the influent sampling valve and measure influent TOV concentration with the PID. Record the concentration.
9. Calculate and record the following ratio:

$$\frac{TOV (Influent) - TOV (Effluent)}{TOV (Influent)}$$

If the ratio exceeds 0.95, then the first carbon canister is effectively controlling total organic vapors. If the TOV ratio is less than 0.95, the canister is deemed to be spent. The canister configuration will be switched and the spent canister will be replaced with a fresh canister.

Bypass Valve Monitoring

Once a week, the bypass valve around the pallet valve on the nitrogen blanketing system will be opened to force flow to the carbon canisters. Monitoring will then be conducted according to the above protocol.

Preventative Maintenance on the Pallet Valves

Once a month, the Owner/Operator will inspect pallet valves. The inspection will consist of removal of the top of the valve, checking the disk and seat sealing surfaces, overall cleanliness of the internals, and that the disk size conforms to design data.

Caron Canister System

The canisters that will be monitored include the following:

Equipment Number	Location
10-S-320	WWTP N/W of Oily CPI Inlet
10-S-321	WWTP Side of Oily CPI, Inlet Box

10-S-322	WWTP W Side of Oily CPI
10-S-323	S/E Side of Oily CPI
10-S-324	N/E Side of API
10-S-325	E side of API
10-S-326	N/W side of API
10-S-327	N/W side of API
10-S-328	S/E side of API
10-S-329	S/E side of API

The carbon canister monitoring will be conducted daily, including Saturdays and Sundays.

PEF:CRR/BAS:slb

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pc: Dover Title V File
 Bruce Steltzer